

IMPERIAL GAZETTEER.

BENGAL,

BURDWAN DIVISION.



Calcutta:

THE BENGAL SECRETARIAT PRESS.

1907.

BURDWAN DIVISION.

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BURDWAN DIVISION.

Burdwān Division.—A Division or Commissionership in Bengal, lying between $21^{\circ} 36'$ and $24^{\circ} 35'$ N., and $86^{\circ} 33'$ and $89^{\circ} 30'$ E. The Division, which covers an area commonly known as West Bengal, includes all the Districts of Bengal proper west of the Bhāgirathi, the earliest known channel of the Ganges, and corresponds roughly to the ancient Rārh and Tamralipta. The Bhāgirathi, called in its lower reaches the Hooghly, separates it from the Presidency Division, and it extends along the right bank of this river to its mouth in the Bay of Bengal; it is bounded on the south and west by the sub-provinces of Orissa and Chotā Nagpur, and on the north by the Santal Parganas and Murshidābād Districts.

Though outside the Gangetic delta the eastern portion of the tract is low and of alluvial formation. Further west, laterite begins to predominate and the surface rises and becomes more and more undulating and rocky until at last, in the west of Birbhum, Burdwān, Bānkurā and Midnapore, it embraces the eastern fringe of the Chotā Nagpur plateau.

Since the Division was constituted in 1854, the head-quarters have been several times moved between Burdwān, Howrah, Hooghly and Chinsura. They were finally transferred to Chinsura in 1896. The table below gives details of the area, population and land revenue and cesses of the 6 Districts of which the Division is composed :—

DISTRICT.	Area in square miles.	Population in 1901.	Land revenue and cesses, 1903-04, in thousands of rupees.
Burdwān	2,689	1,532,475	36,85
Birbhum	1,752	902,280	11,58
Bānkurā	2,621	1,116,411	5,72
Midnapore	5,186	2,789,114	28,02
Hooghly	1,191	1,049,282	16,87
Howrah*	510	850,514	
TOTAL	18,949	8,240,076	98,54

* The land revenue and cesses of Howrah are paid into the collectorate of Hooghly and are included in the figures for that District.

The recorded population fell from 7,604,661 in 1872 to 7,393,954 in 1881, but rose again to 7,689,189 in 1891. The greater portion of the Division suffered severely from the ravages of the notorious Burdwan fever (see BURDWAN District), which broke out nearly half a century ago and caused a terrible mortality. During the last 20 years the disease has gradually died out, and the population is now rapidly increasing. There are now 591 inhabitants to the square mile. In 1901 Hindus constituted 83 per cent. of the population, Mussalmans 13 per cent. and Animists 3½ per cent., while there were 9,463 Christians, of whom half were natives. The Division is peopled largely by castes closely allied to the tribes of Chotā Nagpur, such as the Bégdi, Bauri, Kābūrtta, Kora, Māl, and Santāl. It is also the home of several distinctive castes with claims to a higher rank in the Hindu social system, such as the Aguri, Sukli, Sadgop, Kayasth and Raju, and is the head-quarters of a well-known sub-caste of Brahmins.

The Division contains 27 towns and 24,869 villages, the largest towns being HOWRAH, the great suburb of Calcutta (population 157,594), SERAMPORE (44,451), BURDWAN (35,022), MIDNAPORE (33,140), HOOGHLY with CHINSURA, (29,383) and BANKURA (20,757). The BHAGIRATHI, the old channel of the Ganges, is still the sacred stream of the Hindus, TRIBENI and TARAKESWAR in the Hooghly District possess considerable religious importance, and in Birbhum several localities are associated with the legends of Hindu mythology. The whole of the strip extending along the east bank of the Hooghly from north of Hooghly town to the south of Howrah is of great historic interest and contains the sites of the old capital of SATGAON and of successive settlements of the Portuguese, English, Dutch, French and Danes at BANDEL, Hooghly, Chinsura, CHANDERNAGORE and Serampore. The same tract, which includes Howrah, BARTI and Serampore, is now one of the most densely populated industrial areas in India. The north-west of the Division is rich in iron and coal, the centres of the industry being at RANIGANJ and ASANSOI; the output in 1903-04 amounted to 2,837,071 tons. Silk is manufactured in the Midnapore, Birbhum and Bankura Districts.

The bulk of the estates of the Mahārājā of Burdwan (see BURDWAN RAJ) lies within the Division. These were closely assessed at the time of the permanent settlement, and the present land revenue of the Division thus exceeds that of the great Patna Division, which has nearly double its area and population.

Burdwan District.—District of the Burdwan Division, Bengal, lying between 22° 50' and 23° 53' N., and 86° 48' and 88° 25' E., with an area of 2,689 square miles. It is bounded on the north by the Santal Parganas, Birbhum and Murshidabad; on the east by Nadia; on the south by Hooghly, Midnapore and

Boundaries, con
figuration,
and hill
and river
systems.

Bānkurā; and on the west by Mānbhūm. The administrative head-quarters are at BURDWAN town.

About half of the District is flat and, in the east along the banks of the Bhāgirathi, the soil is water-logged and swampy. In the north-west however the surface undulates, and it is here that the famous Rāniganj coal-field is situated. This corner of the District is one of the busiest industrial tracts in Bengal, and its coal and iron fields are thronged by miners from the neighbouring Districts.

The principal rivers are the DĀMODAR, the Dhalkisor or Dwārkeswar, the Khari, the Bānka and the Ajay, all of which eventually flow into the BHĀGIRATHI or HOOGHLY which demarcates the eastern boundary of the District. The BARAKAR, though not properly speaking a river of Burdwān, passes along the north-western boundary for a few miles before its junction with the Dāmodar. The Ajay touches Burdwān at its extreme north-western corner and forms its northern boundary till shortly before its junction with the Bhāgirathi. The Dwārkeswar runs for about 5 miles along the southern corner of the District. The Khari, a tortuous stream rising in the Galsi thāna, joins the Bhāgirathi some 6 miles north of Kālna. The Bānka, which also rises in the Galai thāna and passes through the town of Burdwān, flows into the Khari shortly before its junction with the Bhāgirathi. The Kunur, which rises in the Faridpur outpost, is a tributary of the Ajay, and the Singarān, which flows through the Rāniganj thāna, joins the Dāmodar.

The District is covered by alluvium, except in the Asansol Geology. sub-division where Gondwāna rocks are exposed. These strata extend into the Districts of Bānkurā, the Santāl Parganas and Mānbhūm, the outcrop covering an area of 500 square miles; they have a dip of from 5° to 25° to the south and along the southern boundary are turned up and cut off by a great fault. The total thickness is estimated at 11,000 feet, and the strata are divisible into the Tālchers at the base, the Dāmodar in the centre and the Pānohet at the top. The Tālchers consist of fine silty shales and soft sandstones, among which occur, generally towards the base of the group, well rolled pebbles and boulders of gneiss and other metamorphic rocks. The Dāmodar series is sub-divided, in ascending order, into the Barākar stage, the ironstone shales and the Rāniganj stage. The Barākars consist chiefly of sandstones, conglomerates and coal-seams of somewhat irregular character, thinning out at short distances; black carbonaceous shales with numerous bands of clay ironstone constitute the ironstone shales; and the Rāniganj beds are made up of coarse and fine sandstones, mostly false-bedded and feldspathic, and shales and coal-seams, which are frequently continuous over considerable areas. The Pānchét group is composed of

greenish and grey shales at the base, superposed by red clays and coarse sandstones. All these groups have yielded plant fossils; and the Pānchét rocks contain, in addition, reptilian and fish remains.

Botany. In land under rice cultivation are found the usual marsh weeds of the Gangetic plain and many sedges. On ponds and in ditches and still streams float aquatic plants and many submerged water weeds. The District contains no forests, but the laterite country is in places clothed with coppices of *sāl* (*Shorea robusta*). The villages and towns are surrounded by the usual shrubberies of semi-spontaneous and sub-economic shrubs and small trees. Species of figs, notably the *pipal* and the banyan, make up, along with bamboos, tamarind, red cotton tree (*Bombax malabaricum*), mango (*Mangifera*), *Moringa*, and *Odina scouler*, the arborescent part of these thickets, in which are often present *Phanix distylifera* and *Borassus flabelliformis*. Hedges and waste places are covered with climbing creepers and various milk weeds. Road-sides are often clothed with a sward of short grasses; and open glades with tall coarse grasses.

Fauna. Leopards are found in the jungles adjoining the Bhāgirathi, and wolves and hyenas are also occasionally met with.

Climate and temperature. Exceptionally high day temperatures are the feature of the hot weather months, the mean maximum rising to 101° in April. The mean temperature for the year is 80°. Humidity is comparatively low, the mean for the year being 77 per cent. The average annual rainfall is 54 inches, of which 9·2 inches fall in June, 12 in July and 11·7 in August.

Natural curiosities. In 1770 the town of Burdwān was practically destroyed by a rising of the Dāmodar, and the whole country between this river and the Ajay was submerged. In September 1823 the Dāmodar and Bhāgirathi flooded the country, causing immense damage and loss of life, and in 1855 there was another serious flood and the embankment on the right bank of the Dāmodar was destroyed. The country is now protected by embankments along the left bank of the Dāmodar and the right bank of the Ajay.

History. Burdwān has been identified as the Parthalis or Portalis which, according to the Greek geographers, was the royal city of the Gangarides. In the seventh century under the Gupta kings the District formed part of a kingdom known as Karna Suvarna, and subsequently, under the Sen dynasty, of the Rāch division of Bengal; more recently Gopbhūm appears to have been the seat of a Sadgop dynasty with head-quarters at Amrāgarh, where the long lines of fortification which enclosed the town are still visible.

Burdwān is first mentioned in Muhammadan histories in 1574, in which year after Daud Khān's defeat and death at Rājmahāl

his family was captured in the town of Burdwān by Akbar's troops. About 10 years later the District formed the scene of several engagements between Daud's son Kuttū and the imperial forces. In 1624 prince Khurram, afterwards the emperor Shāh Jahān, captured the fort and town of Burdwān. Soon afterwards Abu Rai, a Khattrī Kāpur, migrated to Bengal from the Punjab and founded the BURDWAN RAJ. The year 1666 was marked by the rebellion of Subha Singh, zamindār of Chitnā and Bardā, who, with the help of the Afghāns, slew the Rājā of Burdwān and overran a great part of the province. In the beginning of the 18th century the Marāthās made their appearance at Kātwa, and for the next 50 years the District suffered severely at their hands, the inhabitants frequently leaving their villages and seeking a refuge in the swamps. In 1760 the District of Burdwān, together with Midnapore and Chittagong, was ceded to the East India Company by Mīr Kāsim Khān on the deposition of Mīr Jafar Khān from the governorship of Bengal. At that time it comprised the present Districts of Burdwān, Bānkurā, Hooghly and a third of Birbhum. In 1805 the Kishnupur zamindāri (Bānkurā) was included in the Jungle Mahāls, and in 1819 Hooghly was also separated from it. Numerous minor transfers took place until the year 1885, when the District assumed its present proportions.

Some interesting tombs are found in BURDWAN town, ^{Archaeo-}
and groups of Siva *lingam* temples at BURDWAN and KALNA. ^{logy.}
In the Garh jungle near Senpahāri in the Kāksa thāna are the
ruins of a fort said to have been built by Rājā Chitra Sen,
and near Barākar at the foot of the Kalyāneswari hill are temples
said to have been built by an ancestor of the Rājā of
Panchet; the temples at Bogunā near Barākar also deserve
mention.

The population of the present District area decreased from 1,486,400 in 1872 to 1,304,220 in 1881, and to 1,391,880 in 1891, but rose again to 1,532,475 in 1901. The District for many years suffered from a malarial fever of a very virulent type to which it gave its name. The real "Burdwan fever," which often proved fatal within one or two days, appears to have died out, though the District is still subject to fevers of a remittent type, the water-logged tract along the bank of the Bhāgirathi being particularly unhealthy. Cholera is seldom absent and is markedly endemic in Kālna thāna, but there have been no outbreaks of special violence in recent years. The mortality due to this cause in 1902 was 1.87 per mille. Leprosy is very prevalent; and 2.39 per mille of the male population were afflicted with the disease in 1901. The increase of population in the last decade is due to the recovery of the District from the Burdwān fever and to the industrial development of the Asansol

sub-division. The salient statistics of the census of 1901 are reproduced below :—

SUB-DIVISION.	Area in square miles.	NUMBER OF		Population.	Popula- tion per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
		Towns.	Villages.				
1	2	3	4	5	6	7	8
Burdwan ..	1,284	1	1,658	670,413	536	+ 9·6	64,555
Asansol ..	612	2	811	30,938	600	+ 10·0	27,040
Katwa ..	474	2	403	213,266	616	+ 8·1	20,033
Kalna ..	328	1	685	233,263	565	+ 6·8	18,113
DISTRICT TOTAL	2,639	6	3,659	1,632,478	570	+ 10·1	130,533

The principal towns are BURDWAN, the head-quarters, RANIGANJ, ASANSOL, KALNA and KATWA. A remarkable increase has taken place in the Asansol sub-division where the development of the coal trade, especially in Asansol and Barakar, has created an enormous demand for labour. The growth in Asansol thana is phenomenal, the population having increased by more than 31 per cent. since 1891 and by 130 per cent. since 1872. In addition to the coal mines, the iron works, paper mills and potteries attract labourers in large numbers from Bānkurā, Mānbūm, Hazāribāgh, the Santal Parganas, Patna, Guyā, Shāhabād, Monghyr, and the United Provinces. On the other hand numerous clerks emigrate to Calcutta and labourers to Assam. The vernacular is the dialect of Bengali known as Rāhi boli or the western patois. Hindus number 1,221,027 or more than 79 per cent. of the population, and Musalmāns 247,403 or 18 per cent.; among the remainder are 21,048 Animists and 2,960 Christians.

Their castes and occupations.

Of the Hindus the semi-aboriginal Bāggis (198,000) are the most numerous caste; the Bauris, another aboriginal race, number 113,000, Brāhmans 110,000, and Sadgops 106,000. The Sadgops, with the Aguris (66,000) who have sprung from them, have their head-quarters in this District. The Santals (46,000) are chiefly employed in the coal fields, though small settlements of them are to be found in the jungle throughout the District.

Of the population 58·9 per cent. are supported by agriculture, 16·7 per cent. by industries, 1·3 per cent. by commerce and 2·3 per cent. by the professions.

Christian Mission.

The number of Christians more than doubled between 1891 and 1901, but native Christians number little more than a third of the whole, and the increase is mainly due to the large number of Europeans and Eurasians attached to the railways and collieries. The Church Missionary Society is at work in Burdwan town, and the Wesleyan Methodist Mission supports a leper asylum and other

charitable institutions at RANIGANJ. A Roman Catholic Mission has a church and a boarding school in Asansol, where the Methodist Episcopal Mission also maintains a leper asylum, orphanage and school, while at Kālna a dispensary is kept up by the Scotch Free Church Mission. Native Christians numbered 1,027 in 1901.

The alluvium which covers the greater part of the District is extremely fertile but the uplands in the west and north are sterile, and in the undulating rocky country in the extreme north-west, Indian corn is the only crop that thrives. The salient agricultural statistics for 1903-04 are reproduced below in square miles:—

Sub-division.	Total.	Cultivated.	Culturable waste.	Irrigated.
Burdwān	1,268	643	156	33
Asansol	618	257	76	...
Kālwa	404	172	44	...
Kulna	399	226	49	...
TOTAL	2,689	1,298	325	82

Note.—The area shown as irrigated is that which is watered from the Eden Canal. Statistics are not available of the area supplied with water from streams and tanks.

Nearly a quarter of the cultivated area is twice cropped. Rice is the most important staple and occupies 1,221 square miles or more than three-quarters of the total cultivated area; the winter rice covers four-fifths of the whole. Both the winter and early rice crops are transplanted, the latter being generally transplanted at the end of May and cut in the beginning of September, while the winter crop is transplanted in July and cut at the end of November or the beginning of December. In the Asansol sub-division rice is in some parts grown only in the hollows between the undulating hills, but the slopes are often terraced for rice cultivation, the water being retained by embankments; and in such cases the crop is reaped considerably later than elsewhere. Sugarcane, oilseeds and pulses are grown everywhere, and a small quantity of jute in the thānas of Kālna and Jamālpur. Indian corn is raised on the western border, and 1,700 acres are under indigo, though this crop is dying out. Potatoes are largely grown.

The area under cultivation is more or less stationary, but the amount of orchard and garden produce is increasing. An agricultural farm is maintained by the Burdwān Raj at Palla near Burdwān, where experiments are conducted under the supervision of the Agricultural department. Little advantage has been taken of the Land Improvement Loans Act till recently; during the

scarcity of 1897, Rs. 23,000 was advanced; and applications for loans are now becoming numerous.

Cattle.

The cattle are poor, and there are no large pasture grounds except along the banks of the Bhāgirathi, but straw and grass are plentiful. Annual fairs are held at Agradwip, Uddhanpur, Dādia, Bagnapāra, and Kānchanmagar; these are primarily religious gatherings, but are used also for trade purposes.

Irrigation.

About 33 square miles in the Burdwān and Jamālpur thānas and of the Memāri out-post are irrigated from the EDEN CANAL and its distributaries, and elsewhere small streams and tanks are often utilized for irrigation, the water being lifted on to the fields by hollowed tree trunks known as *dongās*. In the Kāksa thāna near the Dāmodar a few shallow irrigation wells have been sunk.

Mines and
mineral
resources.

The character of the coal-field has been described under Geology; the average of 31 assays of samples from different mines gives, as a result, moisture 4·80 per cent., volatile matter 25·83 per cent., fixed carbon 53·20 per cent. and ash 16·17 per cent.

Coal.

The field extends from Andal to Barākar in the Asansol subdivision. In spite of the difficulties caused by the scarcity of labour and shortage of wagons, the mining industry has made very rapid strides of late years, and the number of mines rose from 37 in 1881 to 160 in 1901. In 1903 there were 110 mines, with an output of 2,759,000 tons, the number of work-people employed being 30,566. Most of these collieries are managed by European companies with head-quarters in Calcutta, but some of them, notably the Siārsol collieries, are owned and worked by natives. Most of the pits are shallow and are worked by a system of inclines; cages are, however, used in all the principal European collieries, the deepest pit being one in the Disergarh colliery near Barākar. The coal is used by steamers, factories and railways throughout India. Most of it is taken by rail to Calcutta, whence large quantities are exported to Bombay and Colombo. The miners are chiefly District-born Bauris or immigrant Santals. They are usually paid 5 annas for loading a half-ton tub, and at this rate a man can earn 12 annas a day.

Iron.

An iron field is situated near Barul about 11 miles north of Rāniganj, and pig-iron is smelted at the Barākar Iron and Steel Works. In 1904 the outturn was 40,000 tons of pig-iron valued at 17·30 lakhs and 15,000 tons of castings valued at 12 lakhs. The ore is obtained chiefly from the ironstone shales of the Dāmodar series. Below the ground the ore is in the form of carbonate, but at the surface it consists of haematite and Limonite.

The outturn of the pottery works at Rāniganj was valued at 7 lakhs in 1904. The clays used are chiefly obtained in the neighbourhood of the coal measures, and consist of moko or less

decomposed shales. A quantity of laterite road metal is exported by rail from the Kâksa thâna in the Asansol sub-division.

Silk and cotton weaving were formerly important industries, but they have suffered from competition with English-made goods, though silk is still manufactured in small quantities at Râdhâkântpur and Memâri, and cotton in other places. Brass work is made at Dainhat, Begunkholâ, Banpâs and several other places, and cutlery in Burdwân town. Shellac and lac dye are manufactured at Dignagar in thâna Ausgrâm.

The District contains some important factories. The Bengal Iron and Steel Works at Kondwa, near Barâkar, manufacture railway plant, and employ 1,900 operatives; the outturn in 1903-04 was 43,737 tons valued at 24·6 lakhs. Messrs. John King and Co., Engineers and Founders of Howrah, have a branch of their business at Barâkar. The Râniganj potteries employ 1,500 operatives and turn out drain pipes and roofing tiles; art pottery is also manufactured. The Bengal Paper Mills at Râniganj employ 775 operatives and in 1903-04 made 2,884 tons of paper valued at 8·65 lakhs. The Bengal Dyers and Skinners Company have opened works at Pânsra, near Râniganj, and manufacture a tanning extract from myrabolams which is exported to Scotland. Finally, there are 3 oil mills in Râniganj town and 2 in Burdwân, the outturn of which was valued in 1901 at 5½ lakhs.

The principal exports, besides coal and iron, are rice, pulses of Commerce, all sorts, rape-seed and oil-coko, while the imports are English piece-goods, salt, spices and castor-oil. The imports and exports are mostly from and to Calcutta, but there is a considerable export of grain to the west. The chief centres of trade are the towns of RÂNIGANJ, ASANSOL and BURDWAN. The importance of KATWA and KALNA has declined since the opening of the East Indian Railway. This now carries most of the trade, and the railway stations at Momâri, Mankur, Pânâgarh and Guskharâ are important centres.

The East Indian Railway chord line (broad gauge) runs through the length of the District, the loop line branching north at Khâna Junction. The Jheria branch extension leaves the chord line at Sitârampur, having a station at Barâkar. The Andâl loop separates from the chord line at Andâl and goes round to the north of the coal fields, rejoining the chord at Alipur; there is also an extension from this line to Tapasi. From Asansol a cross line connects with the Bengal-Nâgpur Railway at Sini. The Grand Trunk Road traverses the District for 100 miles; this and portions of the Râniganj-Midnapore road and the Lithoria road, near Sitârampur, are maintained by the District board with the help of a grant from Provincial funds. The District board maintains in all 175 miles of metalled and 253 miles of unmetalled Railways and roads.

roads, the most important being those connecting Burdwān with Kātwa, Kālna, Arāmbāgh and Bānkurā.

The chief waterway is the Bhāgirathi, up which steamers ply to Kālna all the year round; country boats also bring down a large quantity of grain from Nādāngāt, the principal rice mart in the interior. There are important ferries over the Bhāgirathi and the Dāmodar.

Famine.

Burdwān suffered severely in the great famine of 1770. In 1866, the year of the Orissa famine, numbers of destitute persons flocked in from the surrounding Districts, and relief was given to 348,000 persons. Part of the District suffered during the famine of 1873-74, and there was some distress in 1884-85, when relief measures had to be undertaken in some isolated tracts and Rs. 7,000 was spent in gratuitous relief. Again in 1904 the failure of the rice-crop caused considerable distress in the Kātwa and head-quarters sub-divisions. The area affected was about 376 miles and relief works were opened by the District board, but at no time did the number on relief rise above 2,981. Besides this expenditure, Rs 35,000 was advanced in the shape of loans and Rs. 3,000 was spent in gratuitous relief.

District
sub-di-
visions and
staff.

For general administrative purposes the District is divided into 4 sub-divisions, with head-quarters at BURDWĀN, ASANsOL, KĀLNA and KĀTWA. The staff subordinate to the Magistrate-Collector at head-quarters consists of 5 Deputy Collectors and occasionally a Joint Magistrate. A Covenanted Civil Servant assisted by a sub-deputy collector, is in charge of the Asansol sub-division; a Deputy Collector assisted by a sub-deputy collector manages the Kālna sub-division; and a Deputy Collector assisted by a kānungs is stationed at Kātwa.

Civil and
criminal
justice.

The civil courts at Burdwān are those of the District Judge, an Additional Judge, a Sub-Judge and 5 Munsifs; there are also Munsifs at Rāniganj and Kālna, and 2 at Kātwa. The stipendiary criminal courts are those of the Sessions Judge, the District and sub-divisional magistrates and their subordinates. Dacoities frequently occur, and petty thefts and burglaries are very common in the Asansol sub-division, especially in the neighbourhood of Asansol.

Land
revenue.

At the settlement of Todar Mal the present District of Burdwān fell within various sarkārs, portions of which were subsequently amalgamated into one great zamindāri, including also the whole of Bānkurā and Pānchét (Mānbhūm) together with parts of Hooghly and Birbhūm. It had a revenue of 20·47 lakhs, and was granted revenue-free to the East India Company in 1760. At the time of the permanent settlement in 1793 the Mahārājā of Burdwān, with whom it was settled, entered into an agreement to pay an annual revenue of 40·15 lakhs of *sicca* rupees and 1·94 lakhs *pulbandhi* (for upkeep of embankments). He

experienced great difficulty in meeting the Government demand on this huge estate, but solved it by the creation of permanent leases known as *patni* tenures, whose rent was fixed in perpetuity, but which could be summarily sold in default of payment. The *patnidārs* in their turn let their lands on lease to *dar-patnidārs*, *dar-patnidārs* to *si-patnidārs* and in some rare instances *si-patnidārs* created *shahārām patnis*. The sales were at first held by the Mahārājā, but subsequently the tenures were recognized by Government, and by the Patni Sale Law (Regulation VIII of 1819) their sale was placed in the hands of the Collector. Most of the District is now held in *patni* from the BURDWAN RAJ. There are also a large number of *aimmā* estates, originally granted free of revenue by the Muhammadan government, and other revenue-free estates and rent-free tenures, but many of the old service holdings, e.g., the *ghātavāli* lands, have been resumed. The land revenue demand of 30·49 lakhs is higher than that of any other part of Bengal, the incidence of Rs. 2·10·9 per cultivated acre being exceeded only in the neighbouring District of Hooghly. Nearly all the revenue is paid by 6,006 permanently settled estates, but 133 estates are temporarily settled and 38 held direct by Government, the revenue being Rs. 10,600 and Rs. 3,000 respectively. Rents rule higher than in any other part of Bengal, except Hooghly. They are lowest in the poor paddy lands in the Rāniganj and Asansol thānas, and highest in the irrigated areas and in the rich alluvial soil further east, and range from Rs. 3·6 per acre in high lands to Rs. 9 in low lands, the average being Rs. 7·12·7. The following table shows the collections of revenue, under the principal heads, in thousands of rupees :—

		1880-81.	1890-91.	1900-01.	1903-04.
Land revenue	...	30,45	30,13	30,50	30,51
Total revenue	...	38,36	40,51	45,18	46,32

Outside the 6 municipalities of BURDWAN, KALNA, KĀTWA, DAINHAT, RĀNIGANJ and ASANSOL, local affairs are managed by the District board with subordinate local boards at Asansol, Kālna and Kātwa. In 1903-04 the income of the District board was 2·74 lakhs, of which Rs. 1,67,000 was derived from rates, and the expenditure was 3·07 lakhs, of which Rs. 1,94,000 was spent on civil works, and Rs. 62,000 on education.

An embankment starting at Silla, 20 miles west of Burdwān, protects the left bank of the Dāmoder. Another important work, embankment runs along the right bank of the Ajay in the

Asansol sub-division, extending 7 miles from Gaur Bazar to Kajlādīhi, 4 miles from Bishnupur to Arjunbāri and 11 miles from Sātkāhania to Sāgnarpotā, a total length of 22 miles. The EDEN CANAL has been already mentioned.

Police and jails. The District contains 20 police stations and 14 out-posts. The force under the District Superintendent in 1904 consisted of 7 inspectors, 42 sub-inspectors, 59 head-constables and 540 constables, including 154 town chaukidārs stationed in the 6 municipalities; there was also a rural police force of 4,918 village watchmen and 393 daffadārs or head watchmen. There are still many watchmen, called phāridārs, paiks and ghātvalas, who hold land in return for police services, but the majority of them have been replaced by paid watchmen under the Village Chaukidari Act, and the ghātvali lands are now under resumption. The District jail at BURDWAN has accommodation for 256 prisoners, and subsidiary jails at the 3 sub-divisional out-stations for 88.

Education. In 1901 the proportion of literates was 8·5 per cent. (16·2 males and 8 females). The total number of pupils under instruction increased from 45,442 in 1881-82 to 47,139 in 1892-93 and 48,084 in 1900-01, while 47,434 boys and 3,396 girls were at school in 1903-04, being respectively 41·3 and 2·9 per cent. of the children of school going age. The number of educational institutions, public and private, in that year was 1,412, including one Arts college, 138 secondary schools, 1,225 primary schools and 48 other special schools. The expenditure on education was 3·28 lakhs of which Rs. 23,000 was met from Provincial funds, Rs. 57,000 from District funds, Rs. 4,000 from municipal funds and 1·55 lakhs from fees. The most important institutions are the Burdwān Rāj college and a technical school in BURDWAN town. A free high English school, established in 1863 by the trustees of the will of the late Bābu Sārada Prasad Singh Rai, at Chakdighi also deserves mention. Of the primary schools 9 were for the education of aboriginal tribes.

Medical. In 1903 the District contained 10 dispensaries, with accommodation for 10² in-door patients; 56,000 out-patients and 2,086 in-patients were treated and 3,918 operations were performed. The expenditure was Rs. 27,000 of which Rs. 1,700 was met by Government contributions, Rs. 7,000 from local and Rs. 13,000 from municipal funds, and Rs. 4,000 from subscriptions.

Vaccination. Vaccination is compulsory only within municipal areas. Elsewhere it is backward, and in 1903-04 only 45,000 persons, representing 31 per mille of the population, were vaccinated, or rather less than the general average for Bengal.

[Sir W. W. Hunter, *Annals of Rural Bengal*, 1868, and *Statistical Account of Bengal*, vol. iv, 1896; Burdwān Rāj, *Calcutta Review*, 1872; A. C. Sen, *Agricultural Experiments and Enquiries in the*

- Burdwān Division, Calcutta, 1886 (reprinted 1897); W. B. Oldham, Some Historical and Ethnical Aspects of the Burdwān District, Calcutta, 1894; Blanford, The Raniganj Coal-field, Memoirs Geological Survey of India, vol. iii, part i.]*

Burdwān Sub-division.—Head-quarters sub-division of the Burdwān District, Bengal, lying between $22^{\circ} 56'$ and $23^{\circ} 37'$ N., and $87^{\circ} 26'$ and $88^{\circ} 14'$ E., with an area of 1,268 square miles. The sub-division consists of a flat alluvial plain covered with rice crops. Its population was 679,412 in 1901, compared with 619,868 in 1891. It contains one town, BURDWAN, its head-quarters (population 35,022), and 1,688 villages. It is less densely populated than the rest of the District supporting only 536 persons to the square mile. Brass and bell-metal ware and cutlery are manufactured at BANPAS, and silk *dhctis* and *saris* at MEMARI; a large annual fair is held at Kānchannagar, a suburb of Burdwān town. A considerable *tasar* silk industry is carried on at MANKUR, which is also an important trade centre.

Asansol Sub-division.—The north-western sub-division of the Burdwān District, Bengal, lying between $23^{\circ} 25'$ and $23^{\circ} 53'$ N., and $86^{\circ} 48'$ and $87^{\circ} 32'$ E., with an area of 618 square miles. Until 1906 the sub-division was known as the Rāniganj sub-division. The north-western part of the sub-division consists of a rocky undulating country, which merges in the south and south-east in the alluvial plain stretching along the Dāmodar. Its population was 370,988 in 1901, compared with 310,273 in 1891. It contains 2 towns, ASANSOL, its head-quarters and a great railway centre (population 14,906), and RĀNIGANJ, its former head-quarters (15,841) and 811 villages. This sub-division is now the most progressive part of the District, but its density of population, 600 persons to the square mile, is still slightly less than that of the Kātwa sub-division. It differs from the rest of the District, which is entirely agricultural in character; the alluvial soil here changes to laterite, and rich coal and iron fields have of recent years caused a continuous increase in the number and prosperity of its inhabitants. Brass and bell-metal ware and shellac and lac-dye are manufactured at DIGNAGAR.

Kātwa Sub-division.—North-eastern sub-division of the Burdwān District, Bengal, lying between $23^{\circ} 26'$ and $23^{\circ} 50'$ N., and $87^{\circ} 44'$ and $88^{\circ} 17'$ E., with an area of 404 square miles. The sub-division is a flat alluvial tract, and in the east, along the banks of the Bhāgirathi the soil is water-logged and swampy. Its population was 248,806 in 1901, compared with 230,227 in 1891, the density being 616 persons to the square mile. It contains 2 towns, KĀTWA, its head-quarters (population 7,220), and DAIMHAT (5,618), and 465 villages. Large annual fairs are held at Agradwip and Dādia. The manufacture of *tasar* silk is an important industry in the sub-division.

Kālna Sub-division.—South-eastern sub-division of the Burdwan District, Bengal, lying between $23^{\circ} 7'$ and $23^{\circ} 36' N.$, and $88^{\circ} 0'$ and $88^{\circ} 25' E.$ with an area of 399 square miles. This sub-division, like the adjoining sub-division of Kātwa, is flat and alluvial, and the eastern portion along the bank of the Bhāgirathi is low-lying and marshy. Its population was 233,269 in 1901, compared with 231,512 in 1891, the density being 585 persons to the square mile. It contains one town, KALNA, its head-quarters (population 8,121), and 698 villages. NADANGHAT possesses a large river trade in rice.

Burdwan Rāj.—Estate in Bengal comprising an area of 4,194 square miles in 19 Districts, but chiefly in Burdwan, Mānbhūm, Hooghly and Birbhūm. The Burdwan Rājās trace their origin back to 1667, when Abu Rai, a Kāpur Khattrī of Kotli in Lahore who had migrated to Burdwan, was appointed *chāudhri* and Kotwāl of Rikabi Bazar in the town of Burdwan, under the *saujdār* of *chakla* Burdwan. The zamindār who held the estate in 1696 was defeated and slain by the rebellious Subha Singh, but the latter was in his turn killed by the Rāj Kumāri whom he was attempting to outrage. The title of Rājā was first conferred on Chitra Sen Rai in 1741, but the best known representatives of the family have been Kirti Chandra (1702-40) who conquered and annexed the petty kingdoms of Chandrakona and Bardā near Ghātāl in Midnapore, Tilak Chānd (1744-71) who was vested with the title of Mahārāj Adhirāj Bahādur, and Mahtāb Chānd Bahādur (1832-79) who assisted the Government in suppressing the Santāl rebellion of 1855, and later at the time of the Mutiny, and who was appointed a Member of the Viceroy's Legislative Council. Mahārājā Aftab Chānd (1881-85) died without heirs and his widow adopted the present Mahārāj Adhirāj Bijoy Chānd Mahtāb Bahādur, son of Rājā Ban Bihari Kāpur. During his minority the estate was administered by the Court of Wards and was managed with conspicuous success by Kujā Ban Bihari Kāpur first as joint and later as sole manager. The Mahārājā on coming of age was installed in February 1903 by the Lieutenant-Governor of Bengal.

The territorial extent of the Burdwan zamindāri under its early zamindārs Kesari Rām and Jagat Rai at the close of the 17th century was limited to 6 or 7 *parganas*, but Mahārājā Kirti Chandra increased it to 57 *parganas* extending over 5,000 square miles. At the time of the cession of Burdwan to the Company in 1760, the revenue payable was assessed at 31.75 lakhs for three years, after which it was re-assessed at 41.72 lakhs, the increase being due to the resumption of lands hitherto held as *bāzr-zamin* without payment of revenue. At the permanent settlement the Mahārājā entered into an agreement with Government to pay a revenue of *sicca* Rs. 40,15,109 and *sicca*

Rs. 1,93,721 for *pulbandhi* or repair of embankments. The difficulty which he experienced in meeting the Government demand was eventually solved by the creation of leases known as *pātni* tenures. The main conditions of this tenure, which is of a permanent character, are the hypothecation of the land as security for the punctual payment of rent, and liability to summary sale for default. In 1799 the Mahārājā gave away a large portion of the estate in these leases, and the system, which was legalized by Regulation VIII of 1819, was gradually extended, so that by 1825 nearly the whole estate had been leased out in this manner. When defaulting tenures were bought in by the proprietor for want of adequate bids, it was formerly the custom to relet the lands covered by them in *pātni*, but under the administration of the Court of Wards, they were kept under direct management; between 1891-96 these lands, which are known as *khaṭe mahāls*, were regularly surveyed and settled. The operations extended to the Burdwān, Hooghly and Bānkurā Districts and embraced an area of 107 square miles, which was settled at a rental of Rs. 95,000.

The Mahārājā of Burdwān is the largest revenue-payer in India, the present (1903-04) demand from the estate on account of land revenue and cesses being 31·7 lakhs and 3·3 lakhs respectively. Owing to the close assessment made at the time of the permanent settlement, the incidence of land revenue in the Burdwān estate is remarkably high for Bengal.

Asansol Town.—Head-quarters town of the sub-division of the same name, Burdwān District, Bengal, situated in 23° 41' N. and 86° 59' E. on the East Indian Railway 132 miles from Calcutta. Population (1901) 14,906. Asansol is a rapidly growing town, an important railway junction, and one of the chief centres of the coal industry. A large number of European and Eurasian employés live here. Asansol was constituted a municipality in 1896. The average income and expenditure for the decade ending in 1901-02 was Rs. 14,000. In 1903-04 the income was Rs. 20,300, half of which was derived from a tax on houses and lands, and the expenditure was Rs. 20,400, including Rs. 9,000 spent on conservancy. The East Indian Railway volunteers and the "B" troop of the Chota Nagpur Mounted Rifles have their head-quarters at Asansol. A Roman Catholic mission maintains a church, convent and schools; and a Methodist Episcopal mission supports a leper asylum, orphanage and girls' school. The town contains the usual public offices; the subsidiary jail has accommodation for 44 prisoners.

Banpās.—Village in the head-quarters sub-division, Burdwān District, Bengal, situated in 23° 23' N. and 87° 49' E. Population (1901) 1,425. It is noted for its manufactures of brass and bell-metal ware and cutlery.

Barākar.—Village in the Asansol sub-division, Burdwan District, Bengal, situated in $23^{\circ} 45' N.$ and $86^{\circ} 49' E.$ on the left bank of the Barākar river. The population of Barākar proper in 1901 was 385, but the name is ordinarily understood to include several other villages with a total population of nearly 5,000. Barākar is the site of the Bengal Iron and Steel Works, which employ 1,900 hands and had a total output in 1903-04 of 43,737 tons valued at 24·6 lakhs. The main business is the manufacture of railway plant. The manufacture of steel was tried, but was abandoned as unprofitable in 1906. Messrs. John King & Co., Engineers and Founders, of Howrah have also a branch here. Barākar contains several interesting remains, including some ancient stone temples. [*Archaeological Survey Reports*, vol. viii, pp. 150-154.]

Bārul.—Village in Asansol sub-division, Burdwan District, Bengal, situated in $23^{\circ} 44' N.$ and $87^{\circ} 7' E.$ Population (1901) 532. It lies in the middle of the iron ore tract and has given its name to the surrounding iron ore field. The total amount of iron ore extracted in 1900 was 57,000 tons or nearly three times the quantity obtained 10 years previously.

Burdwān Town (*Bārdhamāna*, the "increasing" or "prosperous").—Head-quarters of the Burdwan District, Bengal, situated in $23^{\circ} 14' N.$ and $87^{\circ} 51' E.$ on the Bānka river. Population (1901) 35,022 (excluding 3,669 persons within railway limits), of whom 25,453 were Hindus and 9,441 Musalmāns, while 128 belonged to other religions. The town really consists of numerous small villages stretching over an area of 9 square miles, and the greater part of it is rural in character. In 1814 the population was estimated at 53,927, and for a long time the town was looked upon as a sanatorium, but it suffered very severely from the Burdwan fever from 1863 onwards, and though now free from this virulent type of fever, it is still very unhealthy. It was the head-quarters of the Commissioner of the Burdwan Division from 1854 to 1871, and again from 1884 to 1896.

The town is first mentioned in history as having been captured by prince Khurram in 1624, and again in 1695 by the Hindu rebel Subha Singh. There are several ancient tombs, the most interesting being those of Pir Bahrām Shāh, Khoja Anwār Shāh, Sher Afgan and Kutb-ud-din, and a group of 108 Siva Lingam temples constructed in 1788 is situated at Nawāb Hāt about 2 miles from the town. Within the town itself the principal places of interest are the palaces and gardens of the Mahārāja. Cutlery is manufactured, and there are 2 oil mills; a large annual fair is held at Kānchannagar, one of the suburbs. Burdwan was constituted a municipality in 1865. The average income for the decade ending in 1901-02 was Rs. 1,13,300 and the

expenditure Rs. 1,04,300. In 1903-04 out of a total income of Rs. 1,43,000, Rs. 32,000 was derived from a tax on houses and land, Rs. 21,000 from a water-tax, Rs. 17,000 from a constituency rate, Rs. 6,000 from a tax on vehicles, Rs. 4,000 each from tolls, and from rents, Rs. 3,000 from markets, and Rs. 5,000 from educational institutions. The incidence of taxation was Rs. 2.27 per head of the population. In the same year the expenditure of Rs. 1,10,000 included Rs. 1,000 spent on lighting, Rs. 2,000 on drainage, Rs. 32,000 on constituency, Rs. 11,000 on medical relief, Rs. 12,000 on roads, and Rs. 7,000 on education.

Water-works contracted at a cost of 2 lakhs were opened in 1881, the Magistrate of Burdwan contributing half a lakh, and the remainder being borrowed from Government; the health of the town has since greatly improved. The town possesses the usual public offices. The District jail has accommodation for 256 prisoners, the chief industry being silk spinning and the manufacture of oil and *nawar*; carpets are also made, and indigo dyeing is carried on on a small scale. The most important educational institutions are the Burdwan Raj college, a free institution maintained by the Raj, and a technical school affiliated to the Silput Engineering college, and maintained by the District board with a contribution from the municipality.

Dainhat.—Town in the Katwa sub-division, Burdwan District, Bengal, situated in $23^{\circ} 35' N.$ and $87^{\circ} 11' E.$ on the right bank of the Bhagirathi. Population (1901) 5,618. Brass and bell-metal work is manufactured in the town, and weaving is also carried on; there is some trade in salt, jute, grain, English cloth, cotton and tobacco. Dainhat was constituted a municipality in 1869. The average income for the decade ending in 1901-02 was Rs. 3,900 and the expenditure Rs. 3,500. In 1903-04 the income was Rs. 5,400, chiefly derived from a tax on property (or property tax), and the expenditure was Rs. 4,900.

Dignagar.—Village in the Head-quarters sub-division, Burdwan District, Bengal, situated in $23^{\circ} 26' N.$ and $87^{\circ} 42' E.$ Population (1901) 2,717. It is a local market for grain and sugar, and is noted for its brass and bell-metal ware. Shellac and lac dye are manufactured here.

Kalna Town.—Head-quarters town of the sub-division of the same name, Burdwan District, Bengal, situated in $23^{\circ} 13' N.$ and $88^{\circ} 22' E.$ on the right bank of the Bhagirathi. Population (1901) 8,121. Kalna was a place of great importance in Muhammadan time, and the ruins of a large fort which commanded the river are still to be seen. It was formerly the port which supplied the District, and steamers still visit it throughout the year, but it has suffered owing to the competition with the East Indian Railway, and its population has declined. A conspicuous feature of the town

is a group of 109 Siva *lingam* temples which were built in 1809. Kālīna was constituted a municipality in 1869. The average income for the decade ending in 1901-02 was Rs. 13,000 and the expenditure Rs. 11,000. In 1903-04 the income was Rs. 16,000, of which Rs. 4,000 was derived from a tax on persons (or property tax) and Rs. 4,000 from a tax on vehicles, etc.; and the expenditure was Rs. 14,000. The town contains the usual public offices; the subsidiary jail has accommodation for 20 prisoners.

Kātwa Town.—Head-quarters of the sub-division of the same name, Burdwan District, Bengal, situated in $28^{\circ} 39' N.$ and $88^{\circ} 8' E.$ at the junction of the Bhāgirathi and Ajay rivers. Population (1901) 7,220. Kātwa was at one time considered the key to Murshidābād when that town was the capital of Bengal, and an old fort there was the scene of the defeat of the Marāthās by Ali Vardi Khān. Kātwa is held sacred by the Vaishnavas as having been the place where their apostle Chaitanya entered upon the life of an ascetic. Steamers used to visit it the year round, but owing to the silting up of the Bhāgirathi and the opening of the East Indian Railway its commercial importance has greatly declined; it is now proposed to construct a branch railway from Hooghly. Kātwa was constituted a municipality in 1869. The average income for the decade ending in 1901-02 was Rs. 7,800 and the expenditure Rs. 7,000. In 1903-04 the income was Rs. 10,200, half of which was derived from a tax on persons (or property tax), and the expenditure was Rs. 8,300. The town contains the usual public offices; the subsidiary jail has accommodation for 24 prisoners.

Khāna.—Village in the head-quarters sub-division, Burdwan District, Bengal, situated in $23^{\circ} 20' N.$ and $87^{\circ} 46' E.$ Population (1901) 1,600. Khāna is an important junction on the East Indian Railway, where the chord line branches off from the loop line.

Mankur.—Village in the head-quarters sub-division, Burdwan District, Bengal, situated in $23^{\circ} 26' N.$ and $87^{\circ} 34' E.$ Population (1901) 7,206. Mankur is a station on the chord line of the East Indian Railway, 90 miles from Calcutta, and has a considerable trade; it is also the chief seat of the local silk weaving industry. The Church Missionary Society maintains a medical mission, at which 11,000 patients were treated in 1901.

Memāri.—Village in the head-quarters sub-division, Burdwan District, Bengal, situated in $23^{\circ} 10' N.$ and $88^{\circ} 7' E.$ Population (1901) 1,674. Memāri is a station on the East Indian Railway and an important trade centre. Silk sāris and dhetis are manufactured.

Nādanghāt.—Village in the Kālīna sub-division, Burdwan District, Bengal, situated in $23^{\circ} 22' N.$ and $88^{\circ} 15' E.$ on the Kliari. Population (1901) 916. Nādanghāt is the principal rice

mart in the interior of the District, whence large quantities of grain are carried in by country boats to the Bhāgirathi.

Rāniganj Town.—Town in the Asansol sub-division, Burdwan District, Bengal, situated in $23^{\circ} 36' N.$ and $87^{\circ} 6' E.$ on the north bank of the Dāmodar river. Population (1901) 15,841. The town, which stands on the East Indian Railway and was the head-quarters of the sub-division until 1906, owes its importance to the development of the coal industry and is one of the busiest places in Bengal. Extensive potteries give employment to 1,500 hands, the value of the outturn in 1903-04 being estimated at 6·45 lakhs. Paper mills employ nearly 800 hands, and 2,884 tons of paper valued at 8·65 lakhs were manufactured in 1903-04; 3 oil-mills are also at work. There is a considerable trade in rice and oil. Rāniganj was constituted a municipality in 1876. The average income for the decade ending in 1901-02 was Rs. 19,000, and the expenditure Rs. 16,000. In 1903-04 the income was Rs. 22,000, of which Rs. 12,000 was derived from a tax on houses and lands, and the expenditure was Rs. 20,100. A Wesleyan Methodist mission maintains a leper asylum, an orphanage and day schools.

Birbhūm.—District in the Burdwan Division, Bengal, lying between $23^{\circ} 33'$ and $24^{\circ} 35' N.$, and $87^{\circ} 10'$ and $88^{\circ} 2' E.$, with an area of 1,752 square miles. The name is commonly derived from Bir Bhūmi, the land of heroes, but some trace it to Bir Rāja, a Hindu king of RAJNAGAR, the old capital. Probably Bir was the title of an old line of rulers, just as were Mān, Singh and Dhal of the rulers of Mānbhūm, Singhbhūm and Dhalbhūm respectively. The District is bounded on the north-west by the Santal Parganas; on the east by Murshidābad and Burdwan, and on the south by Burdwan. The administrative head-quarters are at SURI town.

The District forms part of the eastern fringe of the Chotā Nagpur plateau, and the surface is broken by a succession of undulations from north-west to south-east. To the west these rise into high ridges of laterite separated by valleys a mile or more in width, while to the south-east the valleys gradually merge into the alluvial plains of the Gangetic delta. The drainage from the plateau passes south-eastwards across the District, the only rivers of any size being the Mor and the Ajay, which forms the southern boundary. The Mor is a tributary of the Dwārka, and the latter and the Ajay are both affluents of the Bhāgirathi. Their width varies from 200 yards to half a mile; neither river is navigable in the dry weather, when they run almost dry in broad sandy beds. In the rains they swell rapidly till they over-top their banks and inundate the surrounding country, but, even then, the Mor is only navigable down-stream. The other streams deserving notice are the Hinglā, a tributary of the Ajay, tho

Bakreswar, the Dwārka and its tributary tho Brāhmaṇi; and the Bānsloi, all of which rise in the Santāl Parganas.

Geology.

The geological formations represented in Birbhūm are the Archæan gneiss, the Gondwāna system, the laterito, and the Gangetic alluvium. The latter conceals the older rocks except in a narrow strip along the western boundary. The gneiss belongs to the division designated Bengal gneiss, which is remarkable for the great variety of rocks which it contains. The Gondwāna system includes tho Rājmahāl, Dubrājpur and Barākar subdivisions. The Barākar is a sub-division of the lower Gondwāna, while the two other groups belong to the upper Gondwāna; they occur in the Rāngarh hills, which form the southern extension of the Rājmahāl range. The Dubrājpur group is found only in a narrow strip with faulted western boundary along the western border of the range. It consists of coarse grits and conglomerates, often ferruginous, containing quartz and gneiss pebbles, with occasionally hard and dark ferruginous bands. It is unconformably over-laid by the Rājmahāl group consisting chiefly of bedded basic volcanic lavas of the nature of dolorites and basalts. Basic dykes scattered through the gneiss area represent the underground portion of these eruptions. Intercalate between successive lava flows are some aqueous sedimentary layers containing fossil plants similar to those found near Jubbulpore and in Cutch. The coal-measures are represented only by the Barākar group which forms the small Tungsuli field, on the northern bank of the Mor river, and the northern edge of the Rāniganj coal-field. The coal which is contained in those outcrops is scanty and of poor quality. As a rule it is scarcely more than a carbonaceous shale. Ferruginous laterite occupies large areas in the Rāngarh hills and in the valleys of the Mor and Ajay rivers.

Botany.

In the east the vegetation is characteristic of rice-fields in Bengal generally, species of *Aponogeton*, *Utricularia*, *Drosera*, *Dopatrium*, *Ilysinthes*, *Hydrotaea*, *Sphenoclea* and similar aquatic or palustrine genera being abundant. In the drier undulating country in the west the characteristic shrubs and herbs include species of *Wendlandia*, *Ecolelus*, *Stipa*, *Tragus*, *Perotis*, *Spermaceae*, *Zizyphus*, and *Capparis*. Round villages are the usual clumps of mangoes, palms, bamboos and other trees, among which species of *Jicus*, jack and *arjuna* (*Terminalia arjuna*) are often present. The District contains no Government forests, but in the west are forests containing *sāl* (*Shorea robusta*), *piār* (*Buchanania latifolia*), *dhru* (*Anogeissus latifolia*), *kend* (*Diospyros melanoxylon*) and *mahnā* (*Bussia latifolia*).

Fauna.

With the exception of a few leopards, big game has disappeared before the advance of cultivation.

Climate and temperature.

The climate is dry, and high day temperatures are a feature of the hot weather months. The average annual rainfall is

57 inches, of which 10·7 inches fall in June, 12·7 in July, 12·1 in August and 9·9 in September. Destructive floods occurred in 1787 and 1806, and again in September 1902 when the Mor, Brāhmani and Bānsloī rivers rose suddenly and overflowed the surrounding country, causing great damage to villages, houses, roads and bridges. In June 1902 a cyclone which passed through Rāmpur Hāt sub-division, derailed and wrecked a passenger train causing great loss of life.

At the beginning of the 13th century, Birbhūm was a Hindu History. principality with its capital at RAJNAGAR or Nagar, and it is recorded that the Pathān conquerors constructed a road from Devikot, in Dinajpur, through Gaur to Nagar. This place was sacked by the Oriyās in 1244. The zamindari of Birbhūm first appears as a separate fiscal unit at the beginning of the 18th century, when a *sanad* was granted by Jafar Khān, Nawāb of Murshidābād, to Asadullah Pathān, to hold it as a kind of military fief. His family had probably reigned in the country since the fall of the Pathān dynasty of Bengal in 1600. The zamindari, which at that time included a great part of the Santal Parganas and extended over 3,858 square miles, passed into the hands of the British in 1765, but it was not until 1787 that the Company assumed the direct government of Birbhūm. Meanwhile the District was overrun by marauders from the western highlands of Chotā Nagpur, who formed large permanent camps, intercepted the revenues on the way to the treasury and brought the commercial operations of the Company to a standstill. The Rājā could make no head against them and it became absolutely necessary for the English Government to interfere. The two border principalities of Birbhūm and Bānkurā were united into one District, and a large armed force was maintained to repress the bands of plunderers, who for some time continued their depredations. In 1788, the Collector had to call out the troops against a body 500 strong, who had made a descent on a market town within 2 hours' ride of his head-quarters and murdered or frightened away the inhabitants of between 30 and 40 villages. In the following year, the inroads assumed even more serious proportions, the plunderers going about sacking villages "in parties of three or four hundred men well found in arms." The population was panic-stricken, the large villages and trading depots were abandoned, and the Collector was compelled hastily to recall the outposts stationed at the frontier passes, to levy a militia supplementing the regular troops and to obtain reinforcements of soldiery from the neighbouring Districts. The banditti could not hold out against the forces thus brought against them and were driven back into the mountains. Order was soon established, and the country recovered with amazing rapidity from the disastrous effects of the ravages to which it had been exposed. The tranquillity of the District

has since remained undisturbed, except during the Santal insurrection of 1855 (*see SANTAL PARGANAS*).

In 1765 the District was more than twice its present size. In the beginning of the 19th century the zamindari of Bislinupur was formed into the independent Collectorate of Bānkūrā, and some years later considerable tracts to the west were cut off and now form part of the Santal Parganas.

The people. The population of the present District area which was 851,235 in 1872 fell to 792,031 in 1881, but rose to 798,254 in 1891 and to 902,280 in 1901. The decrease previous to 1881 was due to the ravages of the Burdwan fever, from which the District formerly suffered severely, and which was still prevalent in portions of the head-quarters sub-division in 1891. The District is now one of the healthiest in Bengal. Mortality is chiefly due to fever; cholera breaks out occasionally in the south-eastern thanas, but there have been no serious epidemics. Leprosy is very prevalent, the number of males afflicted amounting in 1901 to 3·21 per mille of the population. This District and Bānkūrā enjoy the unenviable notoriety of harbouring a greater number of lepers in proportion to their population than any other tract in India. The main results of the census of 1901 are reproduced below:—

SUB-DIVISION.	Area in square miles	NUMBER OF		Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
		Towns.	Villages.				
Suri	1,107	1	1,981	535,923	484	14·0	41,353
Rāmpur Hāt	613	...	1,336	366,932	593	11·7	25,695
DISTRICT TOTAL	1,760	1	3,317	902,850	515	13·0	70,047

The only town is SURI, the head-quarters. The increase of population at the census of 1901 was most marked in the south, where it represents a recovery from the unhealthiness of the previous decade, and in Murarai thana, in the north, where there has been a considerable settlement of Santals. The Rāmpur Hāt sub-division possesses a fertile soil and is also tapped by the railway, and the District as a whole is now the most progressive in the Burdwan Division. The Santal settlers are mostly cultivators; the District also receives a large number of labourers, shop-keepers, zamindars, peons, etc., from Shahabād and the United Provinces. On the other hand, many of its inhabitants emigrate to Assam as tea garden coolies. The dialect spoken is that known as Rārhi boli or western Bengali. Of the population 657,684 are Hindus, 201,645 Muhammadans and

42,019 Animists. Most of the Animists are found among the Santals, who number 47,000.

Among Hindus, the most prominent castes are the semi-aboriginal Bagdis (88,000), and the Sadgops (84,000). The Musalmans are mostly Shaikhs (183,000) though there are also some Pathans (12,000), Saiyids and Jolahas. Of the population 69 per cent. are supported by agriculture, 11.7 by industries, 0.4 by commerce and 1.5 by the professions.

A Baptist mission, founded at the beginning of the 19th century by Dr. Carey, is a branch of the Serampore Mission and maintains a girls' school in Suri and a few village schools. A Methodist Episcopal mission works at Bolpur on the East Indian Railway. The Christian community in 1901 numbered 819, of whom 709 were natives.

The alluvial tract to the east is well watered and extremely fertile, but the western uplands are arid and infertile. The salient agricultural conditions and principal crops. General agricultural statistics for 1903-04 are reproduced below in square miles:—

Sub-Division.	Total.	Cultivated.	Culturable waste.
Suri Rampur Hât	1,107 645	596 480	89 52
TOTAL	1,752	1,056	141

Of the cultivated area it is estimated that 37 square miles are twice cropped. Rice is the main staple and covers 999 square miles. Nine-tenths of the rice crop is of the variety known as *aman* winter-rice, which is sown in May and June and reaped in November and December. Other food crops are relatively unimportant, but some maize, gram (*Cicer arietinum*) and sugarcane are grown. Orchards and garden produce cover 39 square miles, and mulberry is extensively grown in the east in connection with the silk industry.

The area under cultivation has been greatly extended in recent years by the Santals who have reclaimed large tracts of jungle land in the west of the District. Little advantage has been taken of the Land Improvement and Agriculturists' Loans Acts, except in 1896-97, a year of poor crops, when Rs. 14,000 was advanced under the former Act.

Pasturage is scarce in the east of the District, and the cattle are for the most part poor and ill-fed. A dairy farm has been started at Suri, and a cattle and produce show is held there in January or February. Some English and Hissar bulls have been

imported by the District board and the Sūri Cattle Show Committee.

Irrigation. A good deal of irrigation is effected, by means of reservoirs, in the undulating country in the west, and sugarcane, oilseeds, flax and vegetables are watered from tanks or rivers by means of lifts.

Minerals. Coal is mined on a small scale at Arang on the banks of the Ajay. Iron ores occur in beds towards the base of the laterite in the west; nodular limestone, mica, pottery clay, granite and sandstone are also found.

Arts and manufactures. Cotton weaving is carried on at Supur, Raipur and Ilām Bazar in Bolpur thāna, and at Alunda and Tāntipāra in Sūri thāna, where good cloths and sheets are manufactured. A little silk is woven at Baswa, Bishnupur, Karidha, Tāntipāra and a few other places, while silk spinning is an important industry in the east of the District; a factory at GANUTIA, which originally belonged to the East India Company and is now in the possession of the Bengal Silk Company, being the head-quarters of the industry. The company owns another factory at Bhadrapur and out-factories at Kotāsur and Kaytha and employs about a thousand spinners. Lac bracelets, ink-pots, rulers and other articles are made at Ilām Bazar. Brass-ware is made at Dubrajpur, Tikarbeta, Ilām Bazar, Hāzratpur and Nalhāti, and iron-ware at Dubrajpur, Kharun, Lokpur, Rajnagar and Rāmpur Hāt.

Commerce. The chief exports are rice and raw silk, and the imports are salt, cotton, cotton thread, European cotton piece-goods, pulses, tobacco, kerosene oil and coal. The principal trading centres are at BORPUR, SAINTHIA, RAMPUR HAT, NALHATI, Murarai, DUBRAJPUR, Purandarpur and Ahmadpur.

Railways and roads. The loop line of the East Indian Railway intersects the District from south to north, and a branch from Nalhāti runs eastward to Azimganj. The chord line of the same railway passes about 10 miles south of the District, and a line has been surveyed to connect Sainthia station on the loop line with Andal on the chord passing through Sūri and Dubrajpur. In addition to 140 miles of village paths, the District contains 126 miles of metalled and 302 miles of unmetalled roads maintained by the District board, the most important being those from Katwa through Sūri to Dumkā and those connecting Sūri with the railway.

Famine. The District has not suffered from famine since 1874, but in 1885 there was some local scarcity and Government relief was necessary.

District sub-divisions and staff. For general administrative purposes Birbhūm is divided into 2 sub-divisions with head-quarters at SURI and RAMPUR HAT. The District Magistrate-Collector has at Sūri a staff of 3 Deputy Magistrate-Collectors; the sub-divisional officer at Rāmpur Hāt is assisted by a sub-deputy collector.

Subordinate to the District and Sessions Judge for the disposal Civil and criminal justice. of civil work are a Subordinate Judge, with powers of a small cause court judge up to Rs. 500, and 6 Munsifs stationed at Suri, Dubrajpur, Bolpur (2) and Rāmpur Hāt (2). The criminal courts are those of the District and Sessions Judge, the District Magistrate, and the above-mentioned stipendiary magistrates. Formerly the head-quarters of wandering bands of banditti, Birbham is now one of the quietest Districts in Bengal. Crime is light, but dacoities are not infrequent, a local gang of Muhammadans being responsible for 23 dacoities between 1896 and 1904.

The current land revenue demand in 1903-04 was 10.09 Land lakhs, payable by 1,060 estates. With the exception of 5 small revenue states paying a total revenue of Rs. 2,000, the whole of the District is permanently settled. The incidence is only R. 1-7-6 per cultivated acre or less than half that prevailing in the neighbouring District of Burdwan. The *ghātikāli* rent-free tenures which formerly existed in this District were resumed by Government in 1901. They are described in the article on Bākuna District. Ordinary rice lands fetch from Rs. 3 to Rs. 9 per acre and sugarcane lands Rs. 9 and upwards, while as much as Rs. 15 is paid for good vegetable lands and Rs. 80 for plots on which betel leaf (*Piper betle*) is grown. The ryots frequently sublet their holdings for a share in the produce. Collections on account of land revenue and of total revenue, under the principal heads, are shown below in thousands of rupees:—

	1890-91.	1890-91.	1900-01.	1903-04.
Land revenue	8.03	10.21	10.09	10.08
Total revenue	11.31	14.44	16.85	17.07

Outside the municipalities of Suri and RĀMPUR HĀT, local affairs are managed by a District board, to which sub-divisional local boards are subordinate. The income of the District board in 1903-04 was Rs. 1,33,000, of which Rs. 76,000 was derived from rates, and the expenditure was Rs. 1,40,000, of which Rs. 83,000 was spent on civil works.

The District contains 9 police stations and 5 outposts. The Police force subordinate to the District Superintendent of Police in 1903 consisted of 2 inspectors, 27 sub-inspectors, 13 head-constables and 236 constables; in addition to which there was a rural police of 236 *daffadaras* and 3,144 *chaukidārs*. The cost of the regular force was Rs. 68,000 and there was one policeman to every 11 square miles and to every 5,674 persons. The District jail at

SURI has accommodation for 290 prisoners, and a subsidiary jail at Rāmpur Hāt for 18.

Education. In 1901, the proportion of literate persons was 7·7 per cent. (15·3 males and ·4 females). The total number of pupils under instruction increased from about 12,000 in 1881 to 24,043 in 1892-93 and to 27,303 in 1900-01, while 27,210 boys and 1,557 girls were at school in 1903-04, being respectively 40·7 and 2·2 per cent. of the children of school-going age. The number of educational institutions, public and private, in that year was 1,046, including one Arts college, 52 secondary schools, 952 primary schools and 41 other special schools. The expenditure on education was Rs. 1,61,000, of which Rs. 11,000 was met from Provincial funds, Rs. 25,000 from District funds, Rs. 500 from municipal funds and Rs. 91,000 from fees. These institutions include 15 Santal schools attended by about 400 pupils of aboriginal origin.

Medical. In 1903 the District contained 8 dispensaries, of which 3 with 25 beds had accommodation for in-door patients; at these 35,000 out-patients and 211 in-patients were treated during the year, and 2,391 operations were performed. The expenditure was Rs. 12,000, of which Rs. 400 was met by Government contributions, Rs. 3,000 from local and Rs. 1,200 from municipal funds and Rs. 4,000 from subscriptions; in addition to this a sum of Rs. 20,000 received on behalf of the Chetā Dispensary was invested.

Vaccination. Vaccination is compulsory only within Suri municipality. In 1903-04 the number of successful vaccinations was 27,500 or 31 thousand of the population.

[Sir W. W. Hunter, *Statistical Account of Bengal*, vol. iv, 1876, and *Annals of Rural Bengal*, 1868; E. G. Drake-Brockman, *Notes on the early administration of the Birbhum District, Calcutta*, 1898.]

Suri Sub-division.—Southern sub-division of Birbhum District, Bengal, lying between 23° 33' and 24° 7' N., and 87° 10' and 87° 58' E., with an area of 1,107 square miles. The eastern part of the sub-division presents the appearance of the ordinary alluvial plains of Lower Bengal, but towards the west the ground rises, and this portion consists of a rolling country with undulating uplands of laterite. The population was 535,928 in 1901, compared with 470,229 in 1891, the density being 484 persons to the square mile. It contains one town Suri, its head-quarters (population 8,692), and 1,981 villages.

Rāmpur Hāt Sub-division.—Northern sub-division of Birbhum District, Bengal, lying between 23° 52' and 24° 35' N., and 87° 35' and 88° 2' E., with an area of 645 square miles. The sub-division is a long and somewhat narrow tract running up between the Murshidābād District and the Santal Parganas. It

possesses a fertile soil, except to the west where there is a rolling country with tracts unfit for cultivation and in thāna Murarai to the north, where the land is comparatively infertile and there is a large proportion of unculturable waste. The population was 366,352 in 1901, compared with 328,025 in 1891, the density being 568 persons to the square mile. It contains 1,336 villages, of which RĀMPUR HĀT is the head-quarters, but no towns.

Bakreswar.—Group of hot sulphur springs, in the head-quarters sub-division of Birbhūm District, Bengal, situated in $23^{\circ} 53' N.$ and $87^{\circ} 22' E.$ on the banks of the Bakreswar stream about a mile south of Tāntipāra village. The temperature of the water varies from 128° to $162^{\circ} F.$ About 120 cubic feet of water per minute are ejected from the hottest well. A group of temples to Siva, mostly modern, are much resorted to by pilgrims. Bakreswar is also a *pīthasthān* or sacred place, where the forehead of the goddess Sati is said to have fallen.

Bhadrapur.—Village in the Rāmpur Hāt sub-division, Birbhūm District, Bengal, situated in $24^{\circ} 16' N.$ and $87^{\circ} 57' E.$ 4 miles south of the Nawāda station on the East Indian Railway. Population (1901) 352. The village is interesting as containing the ruins of the palaces of the celebrated Mahārājā Nand Kumār. There is a silk factory there.

Bolpur.—Village in the head-quarters sub-division of Birbhūm District, Bengal, situated in $23^{\circ} 40' N.$ and $87^{\circ} 42' E.$ on the East Indian Railway, 99 miles from Howrah. Population (1901) 3,131. The village is the most important trading centre in the District.

Dubrājpur.—Village in the head-quarters sub-division of Birbhūm District, Bengal, situated in $23^{\circ} 48' N.$ and $87^{\circ} 24' E.$ 14 miles south-west of Sūri town. Population (1901) 6,715. Dubrājpur is surrounded by tanks, the banks of which are planted with toddy palms (*Borassus flabelliformis*). South of the village hugo picturesque rocks of granite and gneiss—(composed of glassy quartz, pink and grey felspar, and black mica) crop up over an area of a square mile. In the centre is a block of granite, 60 foot in height, united to a mass of gneiss, which adheres to it at an angle of 45° . The summit commands a fine view of the surrounding country as far as Parasnāth and the Rajmahāl and Pānchét hills. A flat-roofed temple has been built on one of those granite rocks, and the whole block is worshipped by the Brāhmans as Mahādeo. The village is an important trade centre, and *tasar* silk, brass and iron ware are manufactured here.

Ganutia.—Village in the Rāmpur Hāt sub-division, Birbhūm District, Bengal, situated in $23^{\circ} 52' N.$ and $87^{\circ} 50' E.$ on the north bank of the river Mor. Population (1901) 407. Ganutia is the centre of the silk industry of Birbhūm. A factory was established here in 1786 by a Mr. Frushard. After various

vicissitudes, which are related in Hunter's Annals of Rural Bengal, this gentleman succeeded in converting the forest and waste land around Ganutia into thriving and prosperous villages, and founded factories throughout the north-east of Birbhum. His head factory, which is the most imposing edifice in the District, is now the property of the Bengal Silk Company. The industry has seriously declined of late years and now employs only about 500 persons.

Ilām Bazar.—Village in the head-quarters sub-division of Birbhum District, Bengal, situated in $23^{\circ} 38'$ N. and $87^{\circ} 32'$ E. on the banks of the Ajay river. Population (1901) 1,815. It is the seat of a considerable trade and is celebrated for its manufacture of lac ornaments and toys, *tasar* silk and brass ware.

Kenduli.—Village in the head-quarters sub-division of Birbhum District, Bengal, situated in $23^{\circ} 38'$ N. and $87^{\circ} 26'$ E. on the north bank of the Ajay river. Population (1901) 774. It was the birth-place of Jayadeva, a disciple of the Vishnuite reformer and Sanskrit poet, Chaitanya, the author of the celebrated *Gita Gobinda*, a Sanskrit poem in praise of Krishna. An annual fair in honour of Jayadeva is held in the village on the last day of Pus (the middle of January), which is attended by 50,000 persons.

Lābpur.—Trading village in the head-quarters sub-division of Birbhum District, Bengal, situated in $23^{\circ} 49'$ N. and $87^{\circ} 49'$ E. on the Suri-Katwa road, 7 miles east of Almadpur station, on the East Indian Railway. Population (1901) 750. It contains a temple of the goddess Phullara, where there is a curious practice of feeding jackals. The place is a *pithasthan* or sacred place, where the lips of the goddess Sati are said to have fallen.

Mayūreswar.—Village in the Rāmpur Hāt sub-division, Birbhum District, Bengal, situated in $23^{\circ} 59'$ N. and $87^{\circ} 46'$ E. on the road from Suri to Murshidabad. Population (1901) 2,535. The inhabitants are principally engaged in rearing silk-worms and in silk spinning and weaving.

Nalhāti.—Village in the Rāmpur Hāt sub-division, Birbhum District, Bengal, situated in $24^{\circ} 18'$ N. and $87^{\circ} 50'$ E. on the East Indian Railway, 145 miles from Calcutta. Population (1901) 2,636. Nalhāti is said to have been the capital of a traditional Hindu monarch, Nājā Nala, and traces of the ruins of his palace are pointed out on a hillock called Nalhāti zila, close to the village. Another legend connects the name with a temple to Nalateswari, and it is here that the *nala* or throat of the goddess Sati is said to have fallen. The Azimganj branch of the East Indian Railway joins the loop line at Nalhāti, and it is an important centre of the rice trade.

Rājnagar (or Nagar).—Village in the head-quarters sub-division of Birbhum District, Bengal, situated in $23^{\circ} 57'$ N. and $87^{\circ} 19'$ E. Population (1901) 3,845. Rajnagar was the capital

Education

Medical

Vaccination.

of the Hindu princes of Birbhûm prior to the conquest of Bengal by the Muhammadans in 1203. In 1244 it was plundered by the Oriyâs. The site is now covered with crumbling houses, mouldering mosques and weed-choked tanks ; the ancestral palace of its Râjâs has fallen into ruins. North of the town and buried in dense jungle are the remains of an ancient mud fort said to have been built in the 18th century as a defence against the Marâthâs. The famous Nagar wall or entrenchment, extending in an irregular and broken line around the town for a distance of 32 miles, is now rapidly decaying. The ghâts or gateways have long ceased to be capable of defence, and many parts of the wall have been washed almost level with the ground by the annual rains. The place is locally famous for its mangoes. [Archæological Survey Reports, vol. viii, pp. 146-147.]

Rampur Hat Village.—Head-quarters of the sub-division of the same name, Birbhûm District, Bengal, situated in $24^{\circ} 10' N.$ and $87^{\circ} 47' E.$ on the East Indian Railway, 136 miles from Howrah. Population (1901) 3,908. A great part of the trade of the Santal Parganas passes through the village. It contains the usual public offices; the sub-jail has accommodation for 18 prisoners.

Sainthia.—Village in the head-quarters sub-division of Birbhûm District, Bengal, situated in $23^{\circ} 57' N.$ and $87^{\circ} 41' E.$ on the East Indian Railway, 119 miles from Howrah. Population (1901) 2,622. The village, which lies on the Mor river, is connected with Sûri by a good road. It is an important trade centre.

Sûri Town.—Head-quarters of Birbhûm District, Bengal, situated in $23^{\circ} 54' N.$ and $87^{\circ} 32' E.$ on the summit of a gravel ridge, 3 miles south of the Mor river. Population (1901) 8,692. Sûri was constituted a municipality in 1876. The average income for the decade ending in 1901-02 was Rs. 11,000 and the expenditure Rs. 10,000. In 1903-04 the income was Rs. 16,000, of which Rs. 5,000 was derived from a tax on persons (or property tax), and Rs. 3,000 from a conservancy rate; and the expenditure was Rs. 14,000. The town contains the usual public offices; the District jail has accommodation for 290 prisoners, the principal industries being oil-pressing, also pounding, *newâr* and carpet making. A large cattle and produce show is held annually in January or February at which prizes are given. Palanquins and furniture are made in the town, and cotton and silk weaving are carried on in the villages of Alunda and Karidha in the neighbourhood.

Surul.—Village in the head-quarters sub-division of Birbhûm District, Bengal, situated in $23^{\circ} 40' N.$ and $87^{\circ} 40' E.$ in the south of the District, about 5 miles north of the Ajay river. Population (1901) 1,558. The village is noteworthy as the site of an old commercial residency, formerly the centre of the

Company's trade in Birbhûm. During the latter years of the 18th century, from 4½ to 6½ lakhs of rupees were annually expended on the mercantile investment at Surul. The first Commercial Resident, Mr. Cheap, who exercised magisterial powers, has left behind him the name of "Cheap the Magnificent." He introduced indigo cultivation into the District, improved the manufacture of sugar by means of apparatus brought from Europe, and established a private firm, which flourished until within the last few years. When the Company gave up their commercial dealings, the residency at Surul was abandoned. The ruins crown the top of a small hill. The trade in indigo and sugar is now extinct.

*Boun-
daries,
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Bânkurâ District.—Westernmost District of the Burdwân Division, Bengal, situated between 22° 38' and 23° 38' N., and 86° 36' and 87° 46' E., with an area of 2,621 square miles. The Dâmôdar river on the north separates it from the Burdwân District; while it is bounded on the south by Midnapore; on the east by Burdwân and Hooghly; and on the west by Mânbhûm.

The District forms part of the eastern fringe of the Chotâ Nagpur plateau. In the north and west it consists of broken rocky country with isolated spurs, of which the highest are the Susunia hill (1,442 feet), and Bibâri Nâth. To the east the elevation is lower; the country has an undulating park-like aspect and eventually merges in the alluvial plains of the Gangetic delta.

The chief rivers are the DAMODAR, which forms the northern boundary, and the Dwärkeswar or Dhalkisor, which traverses the centre of the District. They are insignificant streams during the hot weather, but in the rains become navigable by boats of 50 to 60 tons burden. During this season they sometimes rise so suddenly owing to the rapid drainage from the neighbouring hills that a head wave is formed, called the *hurpa bâr*, not unlike the bore or tidal wave in the Hooghly, which often causes loss of life and great destruction of property. The Silai and Kâsai cross the south of the District.

Geology.

Gneiss appears in the western hills, especially in the neighbourhood of Bânkurâ town, and in the north-west metamorphic rocks stand up boldly in well marked hornblende ridges, the general strike of which is nearly east and west. South of Bânkurâ veins of granite occur, especially in the metamorphic rocks along the Silai river, cutting through the gneissic rocks. The Gondwâna system is represented in the north, on the banks of the Dâmôdar river, by beds which belong to the Râniganj group and may contain useful seams of coal. Elsewhere the surface consists of gently undulating ground covered by laterite and alluvium. The former is invariably detrital, and contains such quantities of quartz pebbles as to resemble a coarse

ferruginous conglomerate. The laterite is extensively overlaid by a sandy clay which is often intermixed with *kankar*.*

The uplands are bare or covered with a scrub jungle of Botany. *Zizyphus* and other thorny shrubs which sometimes gives way to *sal* (*Shorea robusta*) forest, while the low hills are covered by a dense mixed forest, which contains species of *Miliusa*, *Schrebera*, *Schleichera* and *Diospyros*. In the low lying land to the east, the swamp vegetation of the West Bengal rice plain is found. In the neighbourhood of villages are thickets, in which the most common species are bamboos, *pipal* (*Ficus religiosa*), banyan (*Ficus indica*), red cotton tree (*Bombax malabaricum*), *Mangifera*, *Moringa*, and *Odina wodier*. The District contains no Government forests.

Black bear are common in the western jungles, and hyenas, Fauna. leopards, wolves, deer and wild hogs are also occasionally found. Almost every variety of Indian snake is found in Bankura, pythons being often met with in the hills, while the cobra, *karait* and other deadly serpents are common.

Exceptionally high day temperatures are a feature of the hot Climate weather months, the mean maximum rising to 93° in March and to 102° in April. The mean temperature for the year is 80°. The porature. average annual rainfall is 56 inches, of which 10·4 inches fall in June, 12·7 in July, 12·4 in August and 8·2 in September.

In prehistoric times Bankura formed part of the old kingdom History of Karna Suvarna, and subsequently of the Rār̄ division of and Bengal. The local legends centre round Bishnupur. Here was founded, in the beginning of the eighth century A.D., one of the eight petty dynasties of Hindu rulers who formerly held the Bengal frontier against the jungle tribes of the western plateau. Under Muhammadan rule the Bishnupur family appears sometimes as the enemy, sometimes as the ally, and sometimes as the tributary of the Musalmān Nawāb. In the rent roll of Todar Mal in 1582 the country held by it was assessed at a fixed tribute. In 1715, under the administration of Jafar Khan, it was brought under closer subjection and the chief was reduced to the status of a zamindār. It was at that time included within the chakla of Burdwān, and was with that District ceded to the East India Company in 1760. From that date the fortunes of the family rapidly declined. They were impoverished by Marāthā raids, and the famine of 1770 left few inhabitants to till the soil. Meanwhile the English added to their public burdens and treated them as mere land stewards, and thus completed their ruin. The present representative of the family is dependent for his subsistence on a few *debottar* estates. When the Bishnupur zamindāri

* *Memoirs, Geological Survey of India*, vol. i, pt. 3, *The geological structure and physical features of the districts of Bankura, Midnapore and Orissa*; also vol. iii, part 1, "The Kaniganj coal field" by W. T. Blanford. The above account was supplied by Mr. P. N. Boson of the Geological Survey of India.

first passed into the hands of the English, it was administered from Murshidābād, but its lawless condition soon necessitated a more direct administration, and in 1787 it was constituted, with Birbhūm, into a separate District. In 1793 it was separated from Birbhūm and added to Burdwan, but in 1805 it was incorporated with the newly constituted JUNGLE MĀHALS, of which it continued to form part until 1833. Bānkura was created a separate revenue District in 1835, but discrepancies long existed between the revenue, judicial and police jurisdictions which were not completely removed until 1879. Interesting archaeological remains are found at BISHNUPUR.

The people.

The population of the present District area increased steadily from 968,597 in 1872 to 1,041,752 in 1881, to 1,069,668 in 1891 and to 1,116,411 in 1901. The undulating uplands are well drained and form one of the most salubrious tracts in Bengal. The Bishnupur sub-division is less healthy, and here the notorious Burdwan fever formerly caused great ravages. Mortality is chiefly due to fever. Cholera is always present in a sporadic form and sometimes becomes epidemic. Leprosy is more prevalent than in any other part of India, and more than 3 males per millo were recorded as suffering from it at the census of 1901. The principal statistics of that census are shown below:—

Sub-division.	Area in square miles.	Number of		Population	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
		Towns.	Villages.				
Bānkura ...	1,971 700	1	6,063	712,035	371	+0.85 +7.17	57,928 46,753
Bishnupur ...		2	1,523	403,556	678		
DISTRICT TOTAL	2,021	3	5,582	1,116,417	420	+4.37	103,679

The District is less densely populated than any other in the Burdwan Division. The population is very sparse in the south and west where the land is undulating, rocky and barren; further east, in the Bishnupur sub-division, the soil is alluvial and the density is much greater. The increase of population at the last census is less than half what it would have been but for the large emigration which takes place. The emigrants are for the most part hardy aborigines from the south and west of the District, who are attracted by the high wages paid in the coal fields of Asansol and in the Assam tea gardens, or who supplement their scanty harvests by working as labourers in the metropolitan Districts in the off season. The towns are BĀNKURA, the headquarters, BISHNUPUR, and SONANUKH. The vernacular of the District is the dialect known as Hārhi boli or western Bengali;

but Santali is spoken by nearly 9 per cent. of the population. By religion 975,746 are Hindus, 51,114 Musalmans and 89,157 Animists. The last-mentioned are chiefly Santals of the headquarters sub-division, who number altogether 106,000.

The Musalmans are almost all Shaikhs (14,000). Among the Hindus the semi-aboriginal castes of Bauri (113,000) and Bagdi (91,000) bulk largely; the former predominating in the west and the latter towards the east of the District. Brahmins (93,000) and Telis (74,000) are also numerous. Of the population 60·7 per cent. are supported by agriculture, 15·9 per cent. by industries, 0·7 by commerce, and 2·2 by the professions. The proportion of agriculturists is considerably below the general average for Bengal.

Christians number 363. A Wesleyan mission commenced work in 1877 and maintains several schools. It has opened classes in Bankura town to teach carpentry, weaving and basket-making, and also built a public library in 1899 and a leper asylum with accommodation for 72 inmates in 1902. An Armenian mission possesses an orphanage near Mejin.

The alluvial soil in the east of the Bishnupur sub-division is general fertile; elsewhere valleys are generally rich and productive, while the higher lands are comparatively barren and are, for the most part, covered with jungle.

The salient agricultural statistics for 1903-04 are reproduced below in square miles; it is estimated that 51 square miles are twice cropped:

Sub-division.	Total.	Cultivated.	Cultivable waste.
Bankura	1,021	451	565
Bishnupur	700	125	433
TOTAL ...	2,621	676	1,299

The chief crop is rice which covers 535 square miles. By far the most important harvest is the *aman* or winter rice, which is sown in April or May, after three or four ploughings, transplanted in July or August, and reaped in December. The *aus* or early rice is sown broadcast in May and reaped in September. Sugarcane covers 20 square miles; maize is cultivated on the higher lands, and oilseeds, pulses, wheat, flax and cotton are also grown. Indigo, formerly an important crop, has now almost disappeared. Rich black mud, scraped from the bottom of tanks or reservoirs, is used as manure mixed with ashes and stubble, while for the more valuable crops cow-dung is also added. In the case of lands

growing sugarcane and other exhausting staples, rotation is observed, sugarcane being generally followed by *til* (*Sesamum indicum*) after which a crop of early rice is taken, followed by mustard and peas mixed.

Improvements in agricultural practice. The cultivated area is being gradually extended. During the last decade Rs. 62,000 has been advanced under the Land Improvement and Agriculturists' Loans Acts for the excavation and re-excavation of irrigation tanks and other miscellaneous improvements.

Cattle. The local cattle are weak and poor, though the pastureage is ample except in the east of the District.

Irrigation. Irrigation is necessary everywhere except in the low country to the east, and it is estimated that one-third of the cultivated area is artificially irrigated. The usual method is to throw a dam across a watercourse, but wells and tanks are also utilized.

Minerals. There are 2 small coal mines in the north of the District, the output in 1903-04 being 10,684 tons. Ferruginous laterite is common, and the quartz, sandstone, trap, gravel and clay which it produces are largely utilized for road-making and brick-burning. Building stone exists in unlimited quantities in the hills. A white lithomarge is obtained under the laterite at a point about 12 miles north-east of Bankura. Gold occurs in small quantities in the sands of the Dhalkisor and Kāsi Rivers.

Arts and manufacturers. Silk spinning, silk and cotton weaving, the manufacture of brass and bell-metal ware, and the preparation of shellac are the principal industries. Bishnupur town contains a large weaving population and is noted for its prettily embroidered scarves and fine silk cloth. *Tasar* silk is manufactured at Bankura, Bishnupur and Birsinghpur, and coarse cotton cloths at Bankura town, Gopināthpur, Barjorā, Rājgrām and Birsinghpur, though they are being ousted from the market by cheap Manchester goods. Sonāmukhi is the centre of the shellac industry, but profits have been reduced by a fall in prices; about 5,000 maunds were exported to Calcutta in 1903-04. Other industries are the manufacture of gold and silver ornaments, iron implements, shell bangles and lac beads.

Commerce. Rice, brass and bell-metal ware, silk stuffs and hides are the chief articles of export, while the imports are tobacco, salt, spices, betel-nuts, poppy heads, cotton and cotton twist and European piece-goods. A small part of the trade passes through the Rāniganj and Pānāgarh stations of the East Indian Railway, but most of it is conveyed by the Midnapore-Jherriā extension of the Bengal-Nāgpur Railway, which passes through the District. There is some bullock cart traffic with Ghātal in the Midnapore District.

The East Indian Railway skirts the north-east boundary. The Midnapore-Jheria extension of the Bengal-Nagpur and roads. Railway, which passes through the District, has recently been opened, and a chord line from Howrah to Bankura is under construction. The chief roads are the Raniganj-Midnapore road maintained from Provincial funds, the old military Grand Trunk Road which runs across the District, the Bankura-Burdwan road *cis* Sankmukhi, the Bankura-Raipur road, and the Bishnupur-Panagarh road. These are maintained by the District board, which has altogether under its charge 24 miles of metalled and 575 miles of unmotalled roads, in addition to 105 miles of village tracks.

River-borne traffic is practically confined to the floating of long rafts (locally called *murs*) down the Damodar; the trade is declining owing to the supply of timber near the river having been practically exhausted.

The District is subject to drought and required Government Famine relief in 1866 and 1874, and again in 1897. On the last occasion a daily average of 2,377 persons were employed on relief works, and 6,528 were gratuitously relieved from May to September at a cost of Rs. 1,20,000, of which Rs 35,000 was contributed by the District board, while the balance was met by Government.

For general administrative purposes the District is divided into 2 sub-divisions with head-quarters at BANKURA and BISHNU-^{District sub-divi.}
PUR. The District Magistrate has at Bankura a staff of 3 ^{sions and} staff. Deputy Magistrate-Collectors, while another, assisted by a sub-deputy collector, is in charge of the Bishnupur sub-division.

For the disposal of civil work there are subordinate to the Civil and District and Sessions Judge, a Sub-Judge and 3 Munsifs at ^{criminal} ^{justico.} Bunkura, one Munsif at Khatra, one at Kotulpur, and 2 at Bishnupur, one of whom occasionally sits at Kotulpur. For many years past the District has been notorious as a centre of gangs of professional dacoits, one of which has been traced back as far as the Mutiny of 1857. These gangs, which mainly commit their crimes in the neighbouring Districts, are now being broken up.

Nearly the whole of the District, as at present constituted, was Land originally comprised in the Bishnupur *pargana*, which constituted revenue, the estate of the Raju. This was gradually broken up, owing to his unpunctuality in paying the land revenue, but in 1835-36, when Bankura was first constituted a separate Collectorate, it still contained only 60 estates. The number was in 1903-04 increased to 1,046, with a current demand of 4.74 lakhs. Of those 983 paying a revenue of 4.73 lakhs are permanently settled; 51 are temporarily settled estates, consisting of the surplus side lands of the Raniganj-Midnapore road, and 12 patty estates are the property of Government. The incidence of the land revenue is lower

than elsewhere in the Division, being only R. 0-12-4 per cultivated acre. Tenures peculiar to the District are *nayabādi*, under which a tenant who takes up waste land is allowed to hold a certain portion of it free of rent or to obtain a deduction from the rent of the entire tenure, *jalsāsa*, an improvement lease under which a tenant constructs tanks or reservoirs on similar terms, and *ilmāndāri*, under which the tenurio-holder enjoys the land rent-free as remuneration for performing the duties of a rent collector. *Ghātikāli* estates were formerly held for services rendered in defending the *ghāts* or frontier passes against the inroads of Marathas and other plunderers. A quit-rent was originally payable to the Rāja of Bishnupur and was included in the assets of the decennial settlement, but on the Rāja's application, those lands were subsequently resumed by Government. The *ghātikālis* have now been abolished and their estates settled. The maximum, minimum and average rates per acre assessed by the Settlement Officer were Rs. 7-8, Rs. 3-12 and Rs. 5-10 for low lands, and Rs. 12, Rs. 3 and Rs. 7-8 for high lands. The average holding of a tenant is 6 acres. Rents rule higher in the east than in the west of the District, rice land bringing in from Rs. 3-12 to Rs. 6 an acre in the west and from Rs. 4-8 to Rs. 7-8 in the Bishnupur sub-division. For *rabi* land the rates vary between Rs. 5-4 and Rs. 12 per acre, though as little as Rs. 3 per acre is paid for the less fertile lands in the north-west. The collections of land revenue and of total revenue, under the principal heads, in thousands of rupees, are shown in the following table:—

	1880-81.	1890-91.	1900-01.	1903-04.
Land revenue	4,59	4,58	4,60	4,79
Total revenue	7,16	8,11	9,45	10,02

Local and
municipal
govern-
ment.

Outside the municipalities of BANKURA, BISHNUPUR and SONAMUKH, local affairs are managed by the District board and the two sub-divisional local boards subordinate to it. The income of the board in 1903-04 was Rs. 1,31,000, of which Rs. 62,500 was derived from rates, and its expenditure was Rs. 1,16,000, half of which was spent on civil works and Rs. 40,000 on education.

Police and
jails.

The District contains 13 police stations and 9 outposts. The force subordinate to the District Superintendent of Police in 1903 consisted of 2 inspectors, 27 sub-inspectors, 25 head-constables and 321 constables. There was in addition a village police consisting of 250 *dafaddars* and 2,931 *chaukidārs*, of whom 401 are remunerated by service tenures. The cost of maintenance of the regular

force was Rs. 77,000 and there was one policeman to every 10·1 square miles and to every 4,327 persons. The District jail at BANKURA has accommodation for 309 prisoners, and a subsidiary jail at Bishnupur for 15.

Education is making steady progress and 9·3 per cent of Education. the population (18·3 males and ·5 females) were literate in 1901. The total number of pupils under instruction increased from 38,512 in 1892-93 to 39,092 in 1900-01, while 37,693 boys and 4,708 girls were at school in 1903-04, being respectively 45·7 and 5·5 per cent. of the children of school-going age. The number of educational institutions, public and private, in that year was 1,388, including one Arts college, 65 secondary schools, 1,241 primary schools and 81 other special schools. The last mentioned institutions include two special Santal schools under mission management, and two aided music schools at Bankura and Bishnupur, at which both vocal and instrumental music are taught. The expenditure on education was Rs. 1,81,000, of which Rs. 22,000 was met from Provincial funds, Rs. 38,000 from District funds, Rs. 2,000 from municipal funds and Rs. 84,000 from fees.

In 1903 the District contained 10 dispensaries, of which 3 Medical had accommodation for 34 in-door patients; the cases of 38,000 out-patients and 318 in-patients were treated, and 2,890 operations were performed. The expenditure was Rs. 11,000, of which Rs. 2,000 was met by Government contributions, Rs. 4,000 from local and Rs. 3,000 from municipal funds and Rs. 2,000 from subscriptions. A leper asylum is maintained at Bankura.

Vaccination is compulsory only within municipal areas; it Vaccination. appears to be gaining ground, though the number of operations varies widely from year to year. In 1903-04, 38,450 persons were successfully vaccinated, representing 36 per thousand of the population.

[Sir W. W. Hunter, *Statistical Account of Bengal*, vol. iv, 1876, and *Annals of Rural Bengal*, 1868.]

BANKURA Sub-division.—Western sub-division of the BANKURA District, Bengal, lying between 22° 38' and 23° 38' N., and 80° 36' and 81° 25' E., with an area of 1,921 square miles. The sub-division is composed of undulating country, covered in places with low scrubby jungle and coppice wood. To the east it merges in the alluvial plain, but to the west the surface is more irregular, the undulations become more marked, and numerous isolated hills appear. The population was 712,055 in 1901, compared with 692,357 in 1891. It contains one town, BANKURA, its headquarters (population 20,737), and 4,039 villages. The sub-division, which lies on the fringe of the Chotā Nagpur plateau, is much less fertile and less densely populated than the Bishnupur sub-division, and supports only 371 persons to the square mile.

Bishnupur Sub-division.—Eastern sub-division of the Bānkura District, Bengal, lying between $22^{\circ} 54'$ and $23^{\circ} 25'$ N., and $87^{\circ} 15'$ and $87^{\circ} 46'$ E., with an area of 700 square miles. The sub-division is for the most part alluvial and flat, presenting the appearance of the ordinary paddy lands of Bengal, but the level surface is broken here and there by undulating slopes of infertile laterite. The population was 404,356 in 1901, compared with 377,311 in 1891, the density being 578 persons to the square mile. It contains 2 towns, BISHNUPUR, its head-quarters (population 19,090), and SONAMUKHI (13,448), and 1,528 villages.

Bānkura Town.—Head-quarters of Bānkura District, Bengal, situated in $23^{\circ} 14'$ N. and $87^{\circ} 4'$ E. on the north bank of the Dhalkisor river. The population in 1901 was 20,737, of whom 19,553 were Hindus, 993 Muhammadans and 158 Christians. Bānkura is said to be named after an early settler named Banku Rai, whose descendants still reside in the town. The climate is dry and very healthy. The town lies on the old Grand Trunk Road from Calcutta to the northwest. The newly constructed Midnapore-Jhetriā branch of the Bengal-Nagpur Railway passes through it, and a direct line from Howrah is contemplated. *Tasar* silk is largely manufactured. Considerable trade is carried on, the chief exports being rice, oil-seeds, lac, cotton and silk cloth, silk cocoons, etc., and the imports English piece-goods, salt, tobacco, spices, coco-nuts and pulses. Bānkura was constituted a municipality in 1869. The average income for the decade ending in 1901-02 was Rs. 13,000, and the expenditure Rs. 12,000. In 1903-04 the income was Rs. 20,000, a third of which was derived from a tax on persons (or property tax), and the expenditure was Rs. 14,000. The town contains the usual public offices; the District jail has accommodation for 309 prisoners, the chief industries being mustard-oil pressing, brick-making, *dari* and *oloth* weaving, and cane and bamboo work. A leper asylum built in 1902 is administered by the Wesleyan Mission; it has accommodation for 72 inmates.

Bishnupur Town.—Ancient capital of Bānkura District, Bengal, under its native Rājās, situated in $23^{\circ} 5'$ N. and $87^{\circ} 20'$ E. a few miles south of the Dhalkisor river. Population (1901) 19,090. The family of the Rājās of Bishnupur which was founded in the eighth century was at one time one of the most important dynasties in Bengal; in Muhammadan times they were nominally tributary to the Nawābs of Murshidābād, but frequently exercised independent powers. In the 18th century the family rapidly declined; they were impoverished by the ravages of the Marāthās, and the famine of 1770 depopulated their territory and completed their ruin.

Ancient Bishnupur was according to the native chronicles a city "more beautiful than the beautiful house of Indra in heaven." It was surrounded by 7 miles of fortifications, within which lay the citadel, containing the palace of the Rajas. The ruins are very curious and interesting. Near the south gateway are the remains of an extensive series of granaries, and inside the fort, which is overgrown with jungle, lies an iron gun, 10½ feet long, the gilt, according to tradition, of a deity to one of the Rajas. Within the boundaries of the fort are numerous brick temples covered with curious sculptures. The most important are the Jorbangal, the Rashinachha and the Malleswar temple. In the map to the Abbé Regnau's *History of the East and West Indies* (1776) Bishenpur and Calcutta are the only two cities which appear in large letters in the present Lieutenant-Governorship of Bengal.

At the present day Bishnupur is an important trading centre, the exports being rice, oilseeds, lac, cotton, silk cloth and silk cocoons; and the imports English piece-goods, salt, tobacco, spices, coco-nuts and pulses. It contains a large weaving population, and is a centre of the lacca silk industry, while it is also noted for its embroidered silk scarves and shawls. The Grand Trunk Road from Calcutta to the north-west passes through the town, and it is a station on the newly constructed Midnapore-Jhettia branch of the Bengal-Nagpur Railway. Bishnupur was constituted a municipality in 1863. The average income for the decade ending in 1901-02 was Rs. 6,700, and the expenditure Rs. 6,300. In 1903-04 the income was Rs. 13,000, of which Rs. 8,000 was derived from a tax on persons (or property tax), while Rs. 4,000 was accounted for by a loan from Government. The expenditure in the same year was Rs. 8,000. The town contains the usual public offices; the sub-jail has accommodation for 15 prisoners.

[Sir W. W. Hunter, *Annals of Rural Bengal* 1868; *Archaeological Survey Reports*, vol. viii, pp. 203-206.]

Sonamukhi.—Town in the Bishnupur sub-division, Bankura District, Bengal, situated in 23° 19' N. and 87° 26' E. Population (1901) 13,418. Sonamukhi was formerly the site of a Commercial Residency and of an important factory of the East India Company, where weavers were employed in cotton spinning and cloth making. It is now the local centre of the shellac industry. It lies on the road between Bishnupur and Pankgarh station on the East Indian Railway. It was constituted a municipality in 1886. The average income for the decade ending in 1901-02 was Rs. 6,300, and the expenditure Rs. 5,200. In 1903-04 the income was Rs. 6,000, mainly derived from a tax on persons (or property tax) and the expenditure was Rs. 5,000.

Susunia.—Hill in the head-quarters sub-division, Bankura District, Bengal, situated in 22° 43' N. and 86° 49' E. and rising

to 1,442 feet above sea-level. It runs due east and west for 2 miles and is covered with heavy tree jungle except on its south face, where it was formerly quarried for building stone.

Boun-
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systems.

Midnapore District (*Medinipur*).—Southernmost District of the Burdwan Division, Bengal, lying between $21^{\circ} 36'$ and $22^{\circ} 57'$ N., and $86^{\circ} 33'$ and $88^{\circ} 11'$ E., with an area of 5,186 square miles. Midnapore is the largest and most populous of the Bengal Regulation Districts; and it is proposed to sub divide it into two Districts in order to ensure greater efficiency of administration. Its western boundary marches with the Balasore District and the Mayurbhanj Tributary State in Orissa and with the Singhbhum and Mānbhūm Districts of Chotā Nagpur, while its southern boundary is the coast-line of the Bay of Bengal. To the east the Hooghly river and its tributary the Rūpnārāyan separate it from the 24-Parganas, Howrah and Hooghly Districts, while on the north it is bounded by Bānkurā.

This extensive District comprises three tracts of well-marked characteristics; the north and west are of laterite formation, the east is deltaic, and the south is sea-board. The Contai and Tamluk sub-divisions are on the sea-coast and the estuary of the Hooghly, and contain the mouths of the Rasulpur and Haldi rivers. They are comparatively free from malaria and produce very rich crops of rice. The Ghātāl sub-division, further north, slopes back from the bank of the Rūpnārāyan; the soil is a rich alluvium, but much of its area is liable to floods, and though excellent crops are reaped, the inhabitants suffer greatly from malaria. The hōad-quarters sub-division consists in the north and west of thinly wooded and rocky uplands forming part of the fringe of the Chotā Nagpur plateau; here the climate is good though the laterite soil is dry and infertile. Towards the east and south the level dips, and a swampy hollow is formed between the elevated country to the west and the comparatively high ground along the coast. The conditions in this tract are very similar to those in the Ghātāl sub-division which it adjoins. In the north-west corner there are several hills over 1,000 feet in height, but the rest of the District is nearly level. The scenery is varied in the north and west, where there are extensive *sal* forests and the country is undulating and picturesque.

The chief rivers are the Hooghly and its three tidal tributaries, the RUPNARAYAN, the Haldi and the Rasulpur. The Rūpnārāyan joins the Hooghly opposite Hooghly Point; its chief tributary is the Silni flowing in a tortuous course through the north of the District which is navigable as far as Ghātāl. The Haldi falls into the Hooghly opposite the northern point of Sāgar Island; its principal tributaries are the Kuliāghāi and the Kāssai, neither of which is navigable; the latter rises in the Mānbhūm District and flows

past the town of Midnapore. The Rasulpur rises in the south of the District and joins the Hooghly a little below Kedgeree and the Cowcally light-house. The SUBARNAREKHA is the only other river requiring notice. It enters the District from Singhbhum and passes through the jungle tract of western Midnapore into the Balasore District; it is not navigable.

In the extreme north-west corner of the District there is a low Geology. ridge formed of grey and bluish grey micaceous schists with bands of a more igneous character. The plains are covered in the north and west by lateritic rocks, which gradually give way in the south and east to the ordinary alluvium of the Gangetic delta. At the surface the laterite invariably contains small rounded fragments of other rocks, and in places these become conglomeratic, pebbles of quartz coated with oxide of iron and rounded fragments of other rocks being frequently formed. Close to the town of Midnapore, where a section is exposed, more than 50 feet of solid laterite are seen superposed in large tabular masses upon a soft soapy greyish white and reddish clay, resembling the kaolin clays which result from the decomposition of felspathic rocks.

In land under rice cultivation are found the usual marsh Botany. weeds of the Gangetic plain and many sedges, while the surface of ponds, ditches and still streams is covered with aquatic plants. The homesteads are embedded in shrubberies of semi-spontaneous growth. Some species of figs, notably the *pipal* and the banyan, make up along with the red cotton tree (*Bombax malabaricum*), *Mangifera*, *Merringa* and *Odina wodier* the arborescent part of these thickets, in which numbers of *Phoenix dactylifera* and palmyra (*Burassus flabelliformis*) are often present. Hedges and waste places are covered with climbing creepers and various milk weeds.

Bears and deer are still plentiful in the west, and leopards and Fauna. hyenas are not uncommon. There are a few wild elephants and wolves, and occasionally a tiger is seen. Wild buffaloes were formerly common in the south, but these have disappeared with the extension of cultivation. Small game is plentiful and includes wild geese, ducks, snipe, ortolans, teal and hares, though, excepting the migratory birds, all game is decreasing. Snakes are numerous.

The climate of the arid tract in the north and west is very Climate, different from that of the swamps in the east and south. The temperature and average mean temperature for the whole District is about 80° . rainfall. The coast-line is wetter and cooler than the higher portion. In the north and west, where the surface is of red laterite and the hot westerly winds from Central India penetrate, exceptionally high day temperatures are a feature of the hot weather months, and the mean maximum temperature rises to 102° in April and May. The average monthly rainfall is less

than an inch for November, December, January and February, and between 1 and $1\frac{1}{2}$ inches in March and April, after which there is a rapid increase. The average fall in June is 9.80 inches, in July 12.42, in August 13.18, in September 9.04 and in October 4.43 inches, the annual total averaging 59 inches.

Natural calamities.

The great cyclone of 1864 caused serious loss of life and property in the south-east; no less than 53,000 deaths were reported, and the returns were far from complete. The immediate losses were equalled, if not exceeded, by the mortality caused by the scarcity and pestilence that resulted from the destruction of the crops and the pollution of the drinking water-supply. Heavy storms, all causing more or less damage to life and property, have occurred on 12 other occasions during the last 70 years. In the alluvial tract the rivers frequently overflow their banks and cause widespread havoc to the crops; owing to silt the mouth of the rivers are obstructed, and large tracts of country remain submerged for weeks after a flood. In 1889 the Bengal Government found it necessary to appoint a Commission to investigate the causes of the frequent occurrence of these floods, and as a result the cross-damming of tidal channels for agricultural purposes has been restricted.

History.

The eastern portion of Midnapore originally formed part of the kingdom of Suhmā or Tamralipta, the ancient name of Tamlük, which is now the head-quarters of a sub-division on the Rūpnārāyan river. It derives its name from *tamra* (copper), which was once an important article of export. The earliest traditional kings of Tamlük were Kshatiriyas of the Peacock dynasty, but they were succeeded by Kaibaritas. The whole District with Kaliagā or Orissa came under Buddhist influence in the fifth century B.C. Early in the fifth century A.D. the Chinese pilgrim Fa Hian spent 2 years at Tamlük and thence took ship for Ceylon. Another Chinese pilgrim Hiuen Tsiang wrote of Tamlük in the seventh century as still an important harbour with 10 Buddhist monasteries containing 1,000 monks and a pillar of king Asoka. The Midnapore District nearly coincides with the Muhammadan division known as *sarkār* Jaleswar, which had for its capital the town of that name now situated in the Balasore District, and was included in Orissa at the time of Todar Mal's settlement in 1582. This *sarkār* paid to the Mughal emperor an annual revenue of 12 $\frac{1}{2}$ lakhs, but during the last half century of Muhammadan rule the Marāthās collected revenue from the southern portions of the District.

It was at Hijili, at the mouth of the Rasulpur river, that Job Charnock with a small force defended himself successfully in 1687 against an overwhelming army of Mughals, and it was from

this place that he sailed to found Calcutta. The British occupation of the District dates from the year 1760, when Mir Kasim, who had been made Subahdar, or governor, of Bengal by the English, assigned to the East India Company the 3 Districts of Burdwan, Midnapore and Chittagong to meet its military expenses. By a subsequent treaty, dated the 10th July 1763, Mir Jafar, who had been reinstated in place of Mir Kasim, confirmed the cession of these Districts, which were then estimated to furnish nearly a third of the whole revenue of Bengal. As a result of the decisive battle of Buxar the *ducali* of Bengal, Bihar and Orissa was conferred in perpetuity on the East India Company in 1765. The Orissa *thikānā* referred to included only the District of Midnapore and a part of Hooghly, and Orissa proper was not conquered from the Marathas until 1803. The principal officer of the Company in these provinces was the Chief or Resident at Midnapore.

In the early years of British administration much trouble was given by the chiefs of the hilly country within as well as without the boundary, and frequent expeditions had to be made against the jungle *rājās*. The southern portion of the District, now the Tamlik and Contai sub-divisions, were at first administered by a Salt Agent and Collector at Hijili. Tamlik was transferred to Midnapore in 1789; but Hijili remained a separate Collectorate up to 1836, when a quarter of it was amalgamated with Midnapore and the rest with Balasore. Dhalbhum originally formed part of Midnapore, but it was transferred in 1833 to Maubhumi and subsequently to Singhbhum; in 1876, however, 45 outlying villages were again included in Midnapore. In 1872 the *parganas* of Chandrakona and Bardsa were transferred from the Hooghly District.

The principal object of archaeological interest is the temple ^{Archæ.} at Tamlik, which is of Buddhist origin but is now dedicated to ^{bry.} the goddess, Bargi-Bhima, or Kali. In the high lands there are various old *garhā* or forts of the petty jungle *rājās*, of which little is left but the sites. Many of the large tanks are of great age, and some of the embankments constructed to restrain the rivers are anterior to the British occupation.

The population fell from 2,612,920 in 1872 to 2,615,665 in 1881, but rose again to 2,631,466 in 1891 and to 2,789,114 in 1901. The decrease in 1881 was due to the prevalence of an epidemic of malaria known as the "Burdwan fever," but since that year there has been a steady increase. During the last decade there was an advance of about 6 per cent. The District is now fairly healthy, with the exception of the low tracts of the Ghatāl sub-division and the centre of the District, where malaria is prevalent. Hepatitis is not uncommon, and elephantiasis exists in the swampy parts of the alluvial portion

of the District. Cholera has diminished since the opening of the railway, as the pilgrims to and from Puri no longer throng the roads spreading the disease in their train. The principal statistics of the census of 1901 are reproduced below:—

SUB-DIVISION.	Area in square miles.	NUMBER OF—		Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
		Towns.	Villages.				
Midnapore ...	3,271	1	3,783	1,277,749	391	+ 4·5	93,598
Ghātāl ...	372	5	1,042	324,001	874	- 0·0	33,100
Tamluk ...	663	1	1,673	583,939	893	+ 9·0	92,130
Contai ...	819	...	2,002	603,180	710	+ 10·0	60,227
DISTRICT TOTAL	5,186*	7	8,464	3,789,114	533	+ 6·0	295,004

* Includes 41 square miles returned as uninhabited river beds.

The population is contained in 7 towns and 8,464 villages. Five of the towns, viz., GHĀTĀL, CHANDRAKONA, KHARAR, RAMJIBANPUR and KHIRPAI are situated in the north-east of the District, which suffered from the Burdwan fever epidemic, and they have scarcely yet regained the population they then lost. The remaining towns are MIDNAPORE, the head-quarters station, and TAMLUK. The pressure of the population is greatest along the banks of the Rūpnārāyan and the estuary of the Hooghly, the maximum density being found in the Tamluk thāna where there are 1,156 persons to the square mile. Further inland the climate is bad and the population gradually decreases. In the west the cultivable area is small, and the population steadily diminishes until, on the confines of Singhbhum and Mayurbhanj, it drops to 259 souls to the square mile. The Contai sub-division is the most progressive part of the District, the increase being greatest in Contai thāna, which in the course of ten years has added nearly a sixth to its population, and in the other three littoral thānas. On the other hand, the Ghātāl sub-division and thānas Debrā, Sābang and Nārāyangarh in the head-quarters sub-division are decadent. This is due, not only to the prevalence of fever, but also to a movement of the population from the densely crowded and water-logged tracts in the north-east and centre of the District to the newly reclaimed lands along the coast and tidal rivers in the Contai and Tamluk sub-divisions. There is

a small loss by migration. The railway has attracted coolies and employés, but it has also facilitated temporary migration to Calcutta and Hooghly. Of every 100 persons, 80 speak Bengali, 10 Oriyā, 3 Hindi and the remainder other languages. Oriyā is spoken in the Contai sub-division and also in the western thānas of the head-quarters sub-division. Hindus number 2,467,047 or 88 per cent. of the population, Muhammadans 184,958 or 7 per cent. and Animists 135,050 or 5 per cent. The Hindus and Muhammadans have increased slightly at the expence of the Animists, who are found only in the north and west of the District.

The bulk of the population is of Dravidian origin. The Kaibartas are the great race caste, numbering no less than 883,000, or nearly a third of the whole population. The Bāgdis (142,000), another aboriginal caste, who gave their name to the ancient Bāgri (South Bengal), are also strongly represented, and so are the Sadgops (131,000), a cultivating branch of the Goālās. The Santals (148,000) are numerous in the north-west of the District. Of the Aryan castes Brāhmans (114,000) are more numerous than elsewhere in Bengal proper, and the Kṣayasths with the Karans, the indigenous writer caste of Orissa, number 91,000. The Baishnabs (93,000) have considerably increased during the last decade, but the Tantis or weavers have lost ground. Of the Muhammadans 121,000 are Shaikhs and 22,000 are Pathans. Agriculture supports 77 per cent. of the population, industry 10 per cent. and the professions 3 per cent.; the remainder follow other occupations. The population is more distinctively agricultural than in any other part of West or Central Bengal.

The Christian population is increasing, and in 1901 numbered 1,974, of whom 1,545 were natives. The American Free Baptist Missions. Mission works among both the Bengalis and the Santals; there is a small Roman Catholic mission to the Santals, and Church of England missions are established at Midnapore and Kharakpur.

The new alluvium in the east and south produces abundant General rice crops. In the west and north rice is grown in the depressions between successive ridges by terraceing the slopes, and maize, millets, oilseeds and pulses are grown on the up-lands, but the crests of the ridges are very infertile. Along the sea-board and on the banks of tidal rivers and creeks, dykes are necessary to keep out the salt water, and similar embankments are erected to protect the low lands in the interior from inundation by floods. The non-tidal rivers are dammed for irrigation purposes, so that the alluvial tract is covered by a network of embankments and cross-drains, which seriously impede the drainage, and in years of heavy rainfall large areas are water-logged. The chief

agricultural statistics for 1903-04 are reproduced below in square miles :—

Sub-division.	Total.	Cultivated.	Culturable waste.	Irrigated.
Midnapore	... 3,271	1,876	243	130
Ghatāl	... 372	242	47	...
Tamluk	... 653	376	171	15
Contai	... 849	633	89	...
Uninhabited river beds	- 41
TOTAL ...	5,186	8,127	550	145

The unculturable area extends over no less than 1,509 square miles in the rocky western up-lands and on the sea-shore and in the big rivers.

The staple product is rice, which occupies nearly three-fourths of the cultivated area. The winter crop occupies 93 per cent. of the total area under rice, and is sown in the early part of the rainy season and reaped in November, December and January. In the most highly cultivated parts the seed is first sown in nurseries, but in the lowlying lands it is sown broadcast. The autumn crop is sown broadcast on dry land in the months of April, May and June, and reaped in August and September. The spring crop is sown broadcast after the rains and is cut in March and April; it usually requires irrigation. The other crops are wheat, barley, peas, linseed, mustard, sesamum, flax, sugarcane, *pān* (*Piper betel*), mulberry, jute, cotton and indigo. Tobacco, turmeric and market garden produce are grown in small quantities on the homestead lands.

Land on which winter rice is grown seldom yields a second crop, but wheat, barley, peas and linseed are often grown on land from which an early rice crop has been taken; 3·6 per cent. only of the cultivated area was twice-cropped in 1903-04. On some of the up-lands a crop is only raised once every two or three years; this is usually sesamum or some other variety of oilseed. The cultivation of indigo, which was grown on high lands or the banks of rivers, has almost entirely died out, as the price of the dye has fallen so low that it no longer pays to manufacture it here. The silk industry has greatly decayed, owing largely to diseases amongst the worms.

Little space exists for further extension of cultivation in the alluvial tract, but much good land remains to be brought under cultivation in the west, and here the work of reclamation is now in progress. The output in many parts might be much increased by substituting transplanted for broadcast rice. Fields are often manured with cow-dung and ashes, but the canal-irrigated and flooded tracts do not require manure as the silt brought down by the water fertilizes the soil. Government loans are not popular, and during the 10 years ending in 1904 only about Rs. 1,000 a year was taken under the Land Improvement Loans Act and nothing under the Agriculturists' Loans Act.

The cattle are of the degenerate species met with in the plains of Bengal, and it is to be feared that they are still further deteriorating owing to the encroachment of tillage on the pasture lands. Attempts have been made at the head-quarters station with some success to improve the breed of cattle by importing cows from Bihar and bulls from Hissar. Buffaloes are common in the south and are mostly kept for milk. No less than 43 fairs are held, but they are generally of a religious or semi-religious nature, and few cattle are sold at them.

The main source of irrigation is the Midnapore High Level Irrigation, navigable canal, which takes off from an anicut across the Kāsai river just below the town of Midnapore, and runs to Ulubāria on the Hooghly 16 miles below Calcutta. It was completed in 1873 at a cost of 80 lakhs and has a navigable length of 53 miles, including the portions of the Kāsai, Rūpnārāyan and Dāmodar rivers into which it flows; regular steamer services, however, have ceased to ply since the opening of the Bengal-Nāgpur Railway to Calcutta. It has several distributaries, one of which is navigable, and in 1901 it supplied water to 80,000 acres of rice or one-twentieth of the crop. Irrigation from tanks and embanked depressions is conducted in the upland tracts, but many of these tanks have been allowed by the zamindārs and talukdārs to fall into decay. In a year of good rainfall the average yield per acre of paddy and straw from irrigated lands is 22 and 38 maunds, compared with 16 and 29 maunds respectively from unirrigated lands.

No reserved or protected forests exist, but the western uplands are clothed with small sal (*Shorea robusta*), mahua (*Bassia latifolia*), tamarind and palas (*Butea frondosa*). The jungle products are lac, wild silk, wax, wood dye, bark fabrics, resin, mahua, firewood and charcoal. The mahua flower and various jungle roots are used as food.

The District contains no mines, but laterito and limestone are quarried. The former is of the kind known as rock laterite and is close grained, hard and durable; it is generally met with at a depth varying from 2 to 4 feet below the surface.

Magnesian potstones are also found. Alluvial gold occurs in small quantities, and also iron and soapstone.

Arts and manufactures.

Excellent mats are manufactured at Raghunāthbārī, Kāsijorā and Nārājol, whence they are exported to Calcutta. Pottery is made in the neighbourhood of Ghātāl for use in the metropolis, and brass and copper utensils are manufactured in the town of Midnapore for local sale. Bell-metal ware is extensively manufactured in Kharār and exported to Calcutta and elsewhere. *Tasar* silk is manufactured in the north, but the processes are old-fashioned and the manufacturers are poor. Weavers are to be found in Chandrakonā and other places, but the industry is being killed by competition with machine-made imported fabrics. Messrs. Louis Payen & Co. of Lyons own a silk factory at Guruli in the Ghātāl sub-division. Salt was formerly manufactured by Government on an extensive scale along the coast, but the manufacture has now ceased.

Commerce.

Large quantities of rice are sent to Calcutta. Among the other exports are sugar and molasses, jute, linseed, gram, pulses, charcoal, brass and bell-metal ware, timber, hides, mats, silk and cotton cloth, *tasar* silk, pottery and vegetables. The chief imports are cotton goods, coal and coke, kerosene oil, gunny, salt, tobacco, potatoes, enamelled ware, nails, etc. The principal trading marts are Midnapore, Ghātāl, Tamluk, Kukrahūti, Pānskura, Chandrakona, Bālibhai, Kasiāri, Garhbotā and Nawāda. Much trade is also done at the fairs held at Tulsi-churā, Gopiballabhpur, Mahishadal and Egrā. Many parts of the District enjoy special facilities for trade. The tidal rivers Hooghly, Rūpnārayan, Haldi and Rasulpur afford an easy means of communication with Calcutta, and the canals carry much of the rice exported.

Railways.

The main line of the Bengal-Nāgpur Railway from Calcutta to Bombay traverses the District from east to west, and from Kharakpur the East-Coast section branches to the south, and the line through Bānkura and the Jheria coal-fields to the north. These lines have all been opened since 1899.

Roads.

The Orissa Trunk Road from Kolā, on the Rūpnārayan, through Midnapore to Dāntan on the frontier of Orissa, and the Pilgrim Road, from Midnapore to Rūniganj, are in charge of the Public Works department. They are metalled and, except where they cross the Silai and Kāsai, fully bridged, and have an aggregate length of 112 miles. The District board maintains (1903-04) 361 miles of metalled and 376 miles of unmetalled roads, and there are 754 miles of village tracks. The principal roads are bridged except where they cross big rivers. They lead from Midnapore to Chichrā on the Singalbhūm border, from Ghātāl to Sijū on the Maubhūm border, from Pānskura to Tamluk, from Contai Road railway station to Contai, from Pīrakātā to Garhbotā,

from Midnapore to the Burdwan border, from Garbheta to Chandrakona, and from Tamluk to Contai. Notwithstanding the numerous excellent roads much of the traffic in the interior is carried by pack-bullocks.

The Coast Canal runs from Geonkhali at the junction ^{Canals.} of the Rupnarayan and Hooghly rivers to the Haldi river, and thence to the Rasulpur river and through the canalized Sarpai river to Contai. About 8 miles above Contai the canal is continued into the Balasore District. It is a tidal canal with locks and is used solely for drainage and navigation, but the traffic has much decreased since the opening of the railway along the east coast, and the regular service of steamers has ceased. The first two reaches of this canal from Geonkhali to the Rasulpur river, called the Hijili Tidal Canal, were opened in 1873, and the remainder, called the Orissa Coast Canal, in 1885. The Midnapore High Level Canal, from opposite Midnapore on the Kasai river to Dainan on the Rupnarayan, was opened in 1873; it is used for navigation as well as irrigation.

Daily steamer services run from Calcutta *via* Geonkhali to Tamluk and Kolá. Country boats ply in the Bay of Bengal, and on the Hooghly and the other tidal rivers of the District; these are made near Contai, are partly decked and will stand a moderate sea.

The District is not specially liable to famine, but the years ^{Famine.} 1766, 1770, 1792, 1851, 1866 and 1897 were years of famine or scarcity. Of the first three little is known, but in 1851 it was estimated that nearly five-eighths of the rice harvest was destroyed. In 1866 the District was involved in the great Orissa famine. After a year of exceptional floods a severe and protracted drought in 1865 resulted in a loss of half the winter rice crop and the distress reached its height in August and September 1866. Relief was afforded much too late and was meagre in the extreme, and although no accurate statistics of the mortality were obtained, it was estimated at 50,000 or no less than one-tenth of the total population of the affected tract. In 1897 a portion of the Binpur thana, about 100 square miles in area with a population of 25,000, was affected by scarcity.

The Midnapore District is one of the heaviest charges in Bengal. For the purposes of administration it is divided into 4 sub-divisions, with head-quarters at MIDNAPORE, GHATAL, TAMLUK and CONTAI. The staff at Midnapore subordinate to the Magistrate-Collector, who is also *ex-officio* Assistant to the Superintendent of the Tributary Mahals, Cuttack, and has the powers of a Revenue Superintendent of Canals in the Howrah District, consists of a Joint Magistrate, 7 Deputy Magistrate-Collectors, an Assistant Magistrate-Collector and a special Deputy Collector for excise. Each of the 3 outlying sub divisions is in

charge of a Deputy Magistrate-Collector; at Tamlük he is assisted by a sub deputy, and at Contai there is a second Deputy Magistrate-Collector for the management of *khâs mahâls*. The Executive Engineer of the Kasai division of the Public Works department is stationed at Midnapore.

Arts or
manufac-
tures.

Civil and
criminal
justice.

Civil justice is administered by a District Judge, with 2 Sub-Judges and 4 Munsifs at Midnapore, 4 Munsifs at Contai, 4 Munsifs at Tamlük and 1 Munsif each at Ghâtâl, Dântan and Garhbetâ. The criminal courts include those of the District Magistrate, the District and Sessions Judge, the Joint, Assistant, Deputy and sub-deputy magistrates. Midnapore is a heavy criminal district and has long been notorious for the number of dacoities committed within its borders. These are largely the work of Tuntiâs, a Muhammadan caste, whose traditional occupation is the cultivation of the mulberry tree (*tumt*) for feeding silkworms. This occupation having become unprofitable, many of them have taken to criminal courses, and are professional thieves and dacoits.

Com. Land
revenue.

The current land revenue demand in 1903-04 was 24.49 lakhs, of which 18.90 lakhs was payable by 2,733 permanently settled estates, Rs. 89,000 by 200 temporarily settled estates, and the balance by 67 estates held direct by Government. The demand is larger than that of any other District in Bengal except Burdwan, and is equivalent to 36 per cent. of the reported gross rental of the District, the incidence on each cultivated acre being R. 1.2-0. The permanent settlement never extended to the Patâspur *pargana*, which adjoins Orissa and was in the possession of the Marâthâs, along with that Province, until 1803. Among the other estates which escaped the permanent settlement are Jalâmutâ, Mâjnamutâ, Kalyânpur and Balarâmpur. The proprietors of Jalâmutâ and Mâjnamutâ refused to engage for them at the time of the permanent settlement on any but temporary conditions, on account of the liability of these estates to inundation. Kalyânpur in the west of the District consists of *tayfir* or excess lands, which by an oversight were left unsettled in 1793. The Balarâmpur *pargana*, in the neighbourhood of Kharakpur, was purchased by Government in 1838 at a sale for arrears of revenue. Patâspur was surveyed and settled for 15 years with effect from 1897. The other temporarily settled estates with an area of nearly 500 square miles are now under resettlement.

The average rate per acre for occupancy ryots' lands in the Patâspur estates is Rs. 3-4-1, but rates vary greatly in different parts. Land on which winter rice is grown usually fetches about 50 per cent. more than that used for early rice, and sugarcane land is about twice as valuable as the best rice land. In addition to the rent a cash premium of from Rs. 30 to Rs. 75

an acre is usually taken at the commencement of a new lease. The following table shows the collections of land revenue and of total revenue, under the principal heads, in thousands of rupees:-

	1880-81.	1890-91.	1900-01.	1903-04.
Land revenue ...	22,45	24,34	22,40	24,18
Total revenue ...	31,01	34,95	37,86	38,75

Outside the municipalities of MIDNAPORE, TAMILUK, GHATAL, Local and CHANDEAKONA, RAMJIBANPUR, KHIRPAI and KHARAR, local municipal affairs are managed by a District board with 4 sub-divisional government local boards and 5 unions. The income of the District board in 1903-04 was Rs. 3,38,000, of which Rs. 1,75,000 was derived from rates, and the expenditure was Rs. 3,47,000, of which Rs. 2,16,000 was spent on civil works and Rs. 99,000 on education.

The system of railways and canals has already been described. Public Embankments have been constructed on an extensive scale, some works. with a view to protecting the coast-line from the invasion of the sea and preventing an inrush of salt tidal water from the overflow of the creeks, and others to prevent the flooding of low lands by the overflow from the rivers. In all, no less than 785 miles of embankments are maintained by the Irrigation department, 543 miles at the public expense, and the balance at the cost of the parties benefited. A sea dyke nearly 42 miles in length, extending from the western boundary of the District to the Rasulpur river, protects the coast from inundation by storm-waves; it was constructed by Government in 1864-74 at a cost of 6 lakhs. The right bank of the Hooghly from the Rasulpur to the Rupnarayan river is protected by an embankment which is extended along the west bank of the Rupnarayan as far north as Ghatal. Both banks of the tidal rivers Haldi and Rasulpur and of several tidal khâls are also similarly embanked. The Kasai river is hemmed in on both banks for a distance of 120 miles to prevent its waters from overflowing, and so is the Silai river for a distance of 25 miles; the Kaliaghâi river is also embanked. Most of the embankments which are now maintained at public expense were in existence before the country came under British administration; they were originally in charge of the zamindars, but they were greatly neglected, and it was found necessary for Government to undertake their repair in order to ensure the punctual collection of the revenue. Various measures have been adopted to improve the drainage in the

water-logged areas in the east and south of the District by cutting channels, deepening rivers and *khâls* and providing sluices in embankments; but there is much scope for further work in this direction.

Arts and
manufactures.

There is a lighthouse at Geonkhâli on the right bank of the Hooghly opposite the northern point of Sûgar island.

Police and
jails.

The District contains 26 thânas, 10 out-posts and 4 road posts. In addition to the District Superintendent of Police and his Assistant, the force includes 7 inspectors, 68 sub-inspectors, 68 head-constables, 649 constables and 109 town *chaukidârs*; there is also a village police of 494 *daffudârs* and 5,863 *chaukidârs*. The regular force is small for this large area, as there is only one policeman to 8·6 square miles and to 4,832 persons. The majority of the village *chaukidârs* are now under Act VI (B.C.) of 1870, but many of them in the west of the District are still remunerated by service lands. The latter are the successors of the *paiks*, or foot-soldiers, who were retained by the zamindârs of former times as a defence against the incursions of Marâthâs and hill-robbers; their service lands are being gradually resumed, and they are being enlisted on regular pay under the Bengal Chaukidâri Act. A Central jail at MIDNAPORE has accommodation for 1,340 prisoners and sub-jails in the outlying sub-divisions for 48.

Comr

Education.

At the census of 1901 the proportion of literate persons was 10·6 per cent. (20·5 males and 7 females), a larger proportion than any other part of Bengal except Calcutta and Howrah. The total number of pupils shown in the returns of the Education department increased from 81,060 in 1883 to 107,000 in 1892-93 and 118,000 in 1900-01. There was a slight fall in 1903-04, when 102,000 boys and 12,000 girls were at school, being respectively 48·8 and 5·7 per cent. of the children of school-going age; both proportions compare favourably with the ratios for the whole of Bengal. The number of educational institutions, public and private, in 1903-04 was 4,263, including an Arts college, 118 secondary schools, 4,077 primary schools and 66 other special schools. The expenditure on education was 4·63 lakhs, of which Rs. 35,000 was met from Provincial funds, Rs. 94,000 from District funds, Rs. 6,000 from municipal funds and 2·62 lakhs from fees. A training school at Binpur for aboriginal tribes and depressed castes, under the management of the American Baptist Mission, supplies teachers to 39 attached *pâthshâlas* which are situated in the Jungle Mahâls. A small technical school at MIDNAPORE is aided from District funds, and a *madrasa* at Patûspur is provided with a hostel from Provincial revenues. The District also contains 58 Sanskrit *sâl*, of which 53 have adopted the standards prescribed by the Education department.

Rai

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In 1903 the District contained 14 dispensaries, of which 7 Medical had accommodation for 123 in-door patients; the cases of 20,000 out-patients and 1,500 in-patients were treated during the year, and 4,700 operations were performed. The expenditure was Rs. 29,000, of which Rs. 4,000 was met by Government contributions, Rs. 5,000 from local and Rs. 12,000 from municipal funds, and Rs. 7,000 from subscriptions.

Vaccination is compulsory only in municipal areas; elsewhere vaccination is very backward, and in 1903-04 only 68,770 persons or 25·5 per mille of the population were successfully vaccinated.

[Sir W. W. Hunter, *Statistical Account of Bengal*, vol. iii, 1876; *Reports of the Embankment Committee*, Calcutta, 1839-40, (reprinted in 1901); J. Price, *Early history of Midnapore*, Calcutta, 1876; *Selections from the records of the Government of Bengal on the settlement of Jalānātā and Mājnamātā estates in Midnapore*, Calcutta, 1882; *Embankment Committee's report*, Calcutta, 1888.]

Midnapore Sub-division.—Head-quarters sub-division of Midnapore District, Bengal, lying between $21^{\circ} 46'$ and $22^{\circ} 57'$ N., and $86^{\circ} 33'$ and $87^{\circ} 43'$ E., with an area of 3,271 square miles. The sub-division consists in the north and west of thinly wooded and rocky uplands. The climate is good, but the laterite soil is dry and infertile. Towards the south and east the level dips, and a swampy hollow is formed between the elevated country to the west and the comparatively high ground along the coast. Its population was 1,277,749 in 1901 as compared with 1,223,248 in 1891, the density being 391 persons to the square mile, which is much less than that of any other of the sub-divisions. It contains one town, MIDNAPORE (population 33,140), its head-quarters, and 3,782 villages. KHARAKPUR, 8 miles from Midnapore town, is an important railway junction.

Ghāṭāl Sub-division.—Northern sub-division of Midnapore District, Bengal, lying between $22^{\circ} 28'$ and $22^{\circ} 52'$ N., and $87^{\circ} 28'$ and $87^{\circ} 53'$ E., with an area of 372 square miles. The sub-division slopes back from the bank of the Rūpnārāyan; the soil is a rich alluvium, but much of its area is liable to floods, and though excellent crops are obtained, the inhabitants suffer greatly from malarial affections. Its population was 324,991 in 1901, as compared with 327,902 in 1891, the density being 874 persons to the square mile. It contains 5 towns, GHĀṭĀL (population 14,525), its head-quarters, CHANDRAKONA (9,309), KHIRPAI (5,045), RAMJIBANPUR (10,264) and KHARAR (9,508), and 1,042 villages.

Tamluk Sub-division.—Eastern sub-division of Midnapore District, Bengal, lying between $21^{\circ} 54'$ and $22^{\circ} 31'$ N., and $87^{\circ} 38'$ and $88^{\circ} 11'$ E., with an area of 653 square miles. The sub-division is a fertile tract, lying along the estuary of the Hooghly, which produces rich crops of rice. Its population was

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tures.

Com:

583,238 in 1901, as compared with 584,958 in 1891, the density being 893 persons to the square mile. This is the most crowded part of the District. It contains one town, TAMILUK (population 8,085), its head-quarters, and 1,578 villages, of which the most important is GEONKHALLI, a considerable centre of trade.

Contai Sub-division (Kāntha).—Southern sub-division of Midnapore District, Bengal, lying between $21^{\circ} 36'$ and $22^{\circ} 11'$ N., and $87^{\circ} 25'$ and $87^{\circ} 59'$ E., with an area of 849 square miles. The sub-division is a maritime tract lying along the sea-coast, swampy and liable to inundation. Its population was 603,136 in 1901, as compared with 545,358 in 1891, the density being 710 persons to the square mile. It contains 2,062 villages, including Contai its head-quarters, but no town. This is the most progressive part of the Midnapore District. The population increased by 10·6 per cent. during the decade ending in 1901, the population crowding to the newly reclaimed lands, known as *jalpa* or fuel-lands and so called because they formerly supplied the fuel for boiling brine when the landholders manufactured salt.

Chandrakonā.—Town in the Ghātāl sub-division, Midnapore District, Bengal, situated in $22^{\circ} 44'$ N. and $87^{\circ} 32'$ E. The population has steadily declined from 21,311 in 1872 to 9,309 in 1901. Early in the 18th century the town was taken from a Hindu family by Rājā Kirti Chandra Rai of Burdwan, and it has since belonged to the Raj. It was formerly an important weaving centre, but the industry has died out. Chandrakonā was constituted a municipality in 1869. The average income and expenditure for the decade ending in 1901-02 were Rs. 4,400 and Rs. 4,300 respectively. In 1903-04 the income was Rs. 5,300 chiefly derived from a tax on persons (or property tax), and the expenditure was Rs. 4,800.

Contai Village (Kāntha).—Head-quarters of the sub-division of the same name, in Midnapore District, Bengal, situated in $21^{\circ} 47'$ N. and $87^{\circ} 46'$ E. Population (1901) 2,558. The place has declined since the manufacture of salt was stopped about 40 years ago. It contains the usual public offices; the sub-jail has accommodation for 15 prisoners.

Geonkhali.—Village in the Tamluk sub-division, Midnapore District, Bengal, situated in $22^{\circ} 10'$ N. and $87^{\circ} 57'$ E. on the right bank of the Hooghly river at the entrance of the Orissa Coast canal. Population (1901) 524. It is a considerable trading centre. A steam ferry crosses from Diamond Harbour in connection with the Eastern Bengal State Railway. There is a light-house here, known as the Cowcally lighthouse.

Ghātāl Town.—Head-quarters of the sub-division of the same name, Midnapore District, Bengal, situated in $22^{\circ} 40'$ N. and $87^{\circ} 43'$ E. on the Silai river near its junction with the

Rūpnārāyan. Population (1901) 14,525. A Dutch factory was formerly situated here. Ghātal is an important trade centre and is connected with Calcutta by a daily service of steamers. Cloth and *tasar* silk are manufactured. Ghātal was constituted a municipality in 1869. The average income and expenditure for the decade ending in 1901-02 were Rs. 7,700 and Rs. 7,400 respectively. In 1903-04 the income was Rs. 9,400, mainly from a tax on persons (or property tax), and the expenditure was Rs. 9,300. The town contains the usual public offices; a sub-jail has accommodation for 18 prisoners.

Hijili.—Name of an old village in the Midnapore District, Bengal, situated at the mouth of the Rasūlpur river. The site has long since been washed away. Hijili was formerly the centre of an extensive salt manufacture, and the Muhammadans had a fort there. A mosque was built by Masnad Ali Shāh, who held the neighbouring District from 1505 to 1546, and whose tomb is still visited by pilgrims. In 1687, after the skirmish at Hooghly, Job Charnock occupied Hijili on behalf of the East India Company and was besieged there for 4 months by a strong Mughal force. Eventually the Muhammadans raised the siege, whereupon Charnock evacuated the place and shortly afterwards laid the foundation of Calcutta. The name of Hijili was also given to a littoral tract of 1,014 square miles extending along the right bank of the Hooghly river from the confluence of the Rūpnārāyan to that of the Subarnarekha, and lying between $21^{\circ} 47'$ and $21^{\circ} 53'$ N. and $87^{\circ} 53'$ and $87^{\circ} 59'$ E.; it contained among others the two large *parganas* of Tamlük and Mahishadāl, and, under Muhammadan rule, constituted a separate administration. In 1836 it was included in the Midnapore District, with the exception of a small tract in the south which was added to the adjoining District of Balasore. Salt manufacture was discontinued about 40 years ago owing to the competition of cheaper Liverpool salt. [For an account of the siege of Hijili, see C. R. Wilson, *Early Annals of the English in Bengal*, 1895, pp. 103-111].

James and Mary Sands.—A dangerous shoal in the Hooghly river, Bengal, situated in $22^{\circ} 14'$ N. and $88^{\circ} 5'$ E. between the confluence of the Dāmodar and of the Rūpnārāyan rivers with the Hooghly. The sands are 3 miles long and a third of a mile in width. They are so named from the wreck of the ship Royal James and Mary which took place on these sands in 1694. The sands occupy the centre of the river, leaving channels on either side, known as the Eastern and Western Gut; they are probably due to the diminution of the velocity of the current of the main channel, caused by the water of the Rūpnārāyan entering the Hooghly nearly at right angles. Various schemes have been suggested for evading this dangerous shoal, and it has

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more than once been proposed to dig a short canal at the back of Hooghly Point so as to avoid the sands, or to construct ship canals from the docks to Diamond Harbour or to Canning on the Mâla river. The problem was examined in 1865, and in 1895 by experts, both of whom suggested the construction of walls to train the channel into the Western Gut. Neither proposal has been adopted by the Port Commissioners, who are at present considering another scheme to improve the existing channels by dredging.

Kedgeres (Khejri).—Village in the Contai sub-division of Midnapore District, Bengal, situated in $21^{\circ} 52' N.$ and $87^{\circ} 59' E.$ on the right bank of the Hooghly river. Population (1901) 1,457. This was formerly an important anchorage, and close by is an old English burial ground containing numerous graves of Europeans who have died on ship board off the coast.

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Kharakpur.—Village in the head-quarters sub-division of Midnapore District, Bengal, situated in $22^{\circ} 20' N.$ and $87^{\circ} 21' E.$ Population (1901) 3,528. It is an important junction on the Bengal-Nâgpur Railway, from which the East Coast section runs south to Madras, while the main line connects Calcutta with Bombay, and a branch runs north to Bânkura and Jhorriâ. Kharakpur is 8 miles from Midnapore town, with which it is connected by road. In the village is the shrine of Pir Lohâni, which is venerated by Hindus as well as by Muhammadans.

Kharâr.—Town in the Ghâtâl sub-division, Midnapore District, Bengal, situated in $22^{\circ} 40' N.$ and $87^{\circ} 44' E.$ Population (1901) 9,508. Brass and bell-metal wares are extensively manufactured. Kharâr was constituted a municipality in 1888. The average income and expenditure for the decade ending in 1901-02 were Rs. 3,500 and Rs. 3,600 respectively. In 1903-04 the income was Rs. 4,800, derived mainly from a tax on persons (or property tax), and the expenditure was Rs. 4,100.

Khirpai.—Town in the Ghâtâl sub-division, Midnapore District, Bengal, situated in $22^{\circ} 43' N.$ and $87^{\circ} 37' E.$ The population was 5,045 in 1901, compared with 8,046 in 1872. The decrease is due to the ravages of the Burdwan fever. Khirpai was constituted a municipality in 1876. The average income and expenditure for the decade ending in 1901-02 were Rs. 2,300 each. In 1903-04 the income was Rs. 4,100, mainly derived from a tax on persons (or property tax), and the expenditure was Rs. 3,450.

Midnapore Town (Medinipur).—Head-quarters of Midnapore District, Bengal, situated, in $22^{\circ} 25' N.$ and $87^{\circ} 19' E.$ on the north bank of the Kâsai river. Population (1901) 38,140, of whom Hindus numbered 26,094, Musalmâns 6,575 and

Christians 398. The town was formally declared the headquarters of the District in 1783, but a factory and fort had been built there more than 20 years previously. Midnapore has no great industry or trade, though brass ware, rieo and timbor are exported on a small scale; the town shows little tendency to grow. It has been recently connected with the Bengal-Nâgpur Railway system by a branch line to Kharakpur. Midnapore was constituted a municipality in 1865. The average income for the decade ending in 1901-02 was Rs. 60,000 and the expenditure Rs. 53,000. In 1903-04 the total income was Rs. 64,000, of which Rs. 18,000 was derived from a tax on houses and lands, Rs. 14,000 from a conservancy rate, Rs. 12,000 as fees from educational institutions, and Rs. 6,000 from a tax on vehicles. The incidence of taxation was R. 1-2-3 per head of the population. In the same year the expenditure of Rs. 63,600 included Rs. 2,000 spent on lighting, and the same amount on drainage, Rs. 16,000 on conservancy, Rs. 11,000 on medical relief, Rs. 4,000 on roads, and Rs. 20,000 on education. The town contains the usual public buildings, and also a church and a central jail. The jail has accommodation for 1,340 prisoners, who are employed on cloth weaving, cane and basket work, mat-making, carpentry and the manufacture of mustard oil. The American Baptist Mission maintains a training school and printing press. The educational institutions include an Arts college and a small technical school.

Râmjibanpur.—Town in the Ghâtal sub-division, Midnapore District, Bengal, situated in $22^{\circ} 50' N.$ and $87^{\circ} 37' E.$ Population (1901) 10,264. Bell-metal ware is manufactured, but the weaving industry which formerly flourished has been killed by the importation of European piece-goods. Râmjibanpur was constituted a municipality in 1876. The average income and expenditure for the decade ending in 1901-02 were Rs. 2,800 and 2,700 respectively. In 1903-04 the income was Rs. 3,550, two-thirds of which was derived from a tax on persons, and the expenditure was Rs. 3,600.

Tamlük Town.—Head-quarters of the sub-division of the same name, Midnapore District, Bengal, situated in $22^{\circ} 18' N.$ and $87^{\circ} 56' E.$ The population in 1901 was 8,085, compared with only 5,849 in 1872. Tamlük or Tâmrâlipta, as it is called in Sanskrit, was the capital of an ancient kingdom known as Tâmrâlipta or Suhmâ. The earliest kings belonged to the Peacock dynasty and were Rajputs by caste, but on the death of Nisanka Nârâyana of this line, the throne was usurped by Kâlu Bhuiyâ, the founder of the existing line of Kaibartta rulers. In ancient times Tamlük was a famous city and figures as a kingdom of great antiquity in the sacred writings of the Hindus. It first emerges in authentic history as a port, being the place whence the Chinese pilgrim Fa Hian took ship to Ceylon in the early part of the fifth

century. Another celebrated pilgrim from China, Hiuen Tsiang, speaks of Tamlük in the seventh century as still an important harbour, with 10 Buddhist monasteries, 1,000 monks and a pillar erected by king Asoka, 200 feet high. Even after the overthrow of Buddhism by Hinduism, many wealthy merchants and shipowners resided here and carried on an extensive over-sea trade. Indigo, silk, and copper (*āmra*), the last of which gave its name to the place, form the traditional articles of export from ancient Tamlük. Hiuen Tsiang found the city washed by the ocean; the earliest Hindu tradition places the sea 8 miles off, and it is now fully 60 miles distant. The process of land-making at the mouth of the Hooghly has gone on slowly but steadily, and has left Tamlük an inland village on the banks of the Rūpnārāyan river. Under the rule of the ancient Peacock dynasty, the royal palaces and grounds are said to have covered an area of 8 square miles fortified by strong walls and deep ditches. No trace of the ancient palace is now discernible, except some ruins to the west of the palace of the present Kairabatta Rājā, which is built on the side of the river, surrounded by ditches, and covers the more moderate area of about 30 acres. The old city lies under the river silt; even the great temple is now partly under-ground, and the remains of masonry wells and houses are met with at 18 to 21 feet below the surface. A considerable number of old silver and copper coins bearing Buddhist symbols have recently been discovered in the midst of debris from the crumbling banks of the Rūpnārāyan. The principal object of interest at Tamlük is a temple sacred to the goddess Bargā Bhīma, or Kālī, situated on the bank of the Rūpnārāyan. The skill and ingenuity displayed in the construction of this temple still command admiration. The shrine is surrounded by a curious threefold wall which rises to a height of 60 feet, its width at the base being 9 feet. The whole is covered with a dome-shaped roof. Stones of enormous size were used in its construction. On the top of the temple, although dedicated to the wife of Siva, is the sacred disc (*chakra*) of Vishnu, surmounted by the form of a peacock. The idol is formed from a single block of stone with the hands and feet attached to it. The goddess is represented standing on the body of Siva and has four hands. Outside the temple, but within its enclosure, is a *keli-kadamba*-tree, supposed to have the virtue of redeeming wives from barrenness. Numbers of women flock hither to pray for offspring, suspending pieces of brick to the tree by ropes made of their own hair. There is also a Brāhmaṇa temple at Tamlük which, in shape and construction, resembles that of Bargā Bhīma.

Tamlük is still a place of considerable importance as the centre of the boat traffic on the Rūpnārāyan. It was constituted a

municipality in 1864. The average income for the decade ending in 1901-02 was Rs. 7,900, and the expenditure Rs. 7,200. In 1903-04 the income was Rs. 9,000, of which Rs. 3,000 was derived from a tax on persons (or property tax), and the expenditure was Rs. 8,000. The town contains the usual public offices; the sub-jail has accommodation for 15 prisoners.

[Sir W. W. Hunter, *Orissa* vol. i, 1872, and *Statistical Account of Bengal* vol. iii, 1876.]

Hooghly District (Hugli).—A District forming the south-eastern portion of the Burdwan Division, Bengal, and lying between $22^{\circ} 35'$ and $23^{\circ} 14'$ N., and $87^{\circ} 30'$ and $88^{\circ} 30'$ E. Excluding the separate District of Howrah, which for revenue purposes still forms part of Hooghly, it has an area of 1,191 square miles. It is bounded on the north by the District of Burdwan; on the east by the Hooghly river; on the south by the District of Howrah; and on the west by the Districts of Midnapore, Bankura and Burdwan.

The high bank of the Hooghly is densely populated and lined by gardens and orchards, interspersed with villages, temples and factories, but between it and the bank of the Damodar extends a swampy water-logged tract, which gradually rises towards the north-west. The principal rivers are the Hooghly, the Damodar and the RUPNARAYAN. The Hooghly nowhere crosses the boundary, and the Rupnarayan (here called the Dwarkeswar) only flows for a few miles across its western angle. The Damodar, which formerly entered the Hooghly about 39 miles above Calcutta, now flows almost due south across Hooghly and Howrah Districts joining the Hooghly opposite Fulta. The result is a partial obstruction to the current of the latter river, and a consequent deposit of silt which forms the dangerous JAMES AND MARY SANDS. As in the other deltaic Districts the silt carried by the rivers is deposited in the river beds and on their banks, which are thus gradually raised above the level of the surrounding country. Extensive swamps have in this way been formed between the Hooghly and the Damodar and between the latter river and the Rupnarayan; the most important are the Dankuni, Santi, Khanyan and Dolki marshes.

The surface is covered by recent alluvial deposits consisting of sandy clay and sand along the course of the rivers, and fine silt consolidating into clay in the flatter parts of the river plain.

The greater part of the District is flat, with the usual aquatic Botany, and marsh weeds of the Bengal rice plain, such as *Hydrilla*, *Vallisneria*, *Aponogeton*, *Utricularia*, *Carex*. The Goghat plain, though very little higher, is still sufficiently dry to have many of the species characteristic of the western Districts, such as *Erolulus alpinoides*, *Tragia racemosa*, *Sipa adenocarponis*, *Wendlandia exulta* and *Gmelina arborea*. In the neighbourhood of

villages and towns shrubberies of semi-spontaneous growth and more or less useful species are to be found. The pipal (*Ficus religiosa*) and the banyan (*Ficus indica*), with other species of figs, make up along with bamboos, plantains (*Musa sapientum*), jack (*Artocarpus integrifolia*), red cotton tree (*Bombax malabaricum*), mango (*Mangifera*), *Moringa*, and *Odina woodier*, the arborescent part of these thickets, in which are often present the date palm (*Phoenix sylvestris*) and toddy palm (*Borassus flabelliformis*). The District contains no forests.

Fauna.

Tigers are extremely rare, but leopards are found in the north, and wild hogs abound in the Hooghly and Pandua thānas, where they do much damage to the crops.

Climate and temperature.

The climate is damp and moist, but the rainfall is seldom excessive, the normal fall being 57 inches, of which 9·7 inches fall in June, 12 in July, 12·5 in August and 8·1 in September. The Dāmodar is peculiarly liable to sudden freshets, and floods were formerly common, especially in the south. In September 1823 the river Hooghly rose to an unprecedented height, and in May 1833 a very severe storm-wave and floods devastated Mandalghāt and the southern parganas. In August 1844 the Dāmodar burst its banks and turned the whole country between Bāli Diwānganj and Dhamiakhāli into one vast sea of water, and in September 1845 Mandalghāt and the south of the District were similarly inundated. Thanks to numerous embankments floods are now of comparatively rare occurrence; but in the south the country is still liable to inundation, especially on the right side of the Dāmodar, over which the floods are allowed to spill in order to save the embankments on the left of its course.

History.

In the pre-Musalmān period Hooghly formed part of the Rārh and Suhmā divisions of Bengal, but the historical interest of the District dates from more recent times. The memories of many nations cluster round its principal towns, and many a village on the bank of the Hooghly is associated with some historical event. SATGAON, now a petty village, was the traditional mercantile capital of Bengal in the days of Hindu rule, and in the early period of the Muhammadan supremacy was the seat of the governor of Lower Bengal. In the 16th century the channel of the Saraswati river, on which Sātgaon was situated, began to silt up, and the principal stream of the Ganges gradually deserted this bed for the Hooghly, at that time a comparatively small river; Sātgaon became inaccessible to large vessels, and in 1537 the Portuguese settled at HOOGHLY. In 1632 the place was captured by the Muhammadans, after a 3½ months' siege, and the seat of the royal port of Bengal was removed thence from Sātgaon with all the records and offices. The English factory at Hooghly dates from 1651, and it was here that the English first came into collision

with the Muhammadan government in Bengal, with the result that Hoogly was abandoned for Calcutta in 1690. The Dutch established themselves at CHINSURA in the early part of the 17th century and held it until it was ceded to Great Britain in 1825. The settlement of SERAMPORE was founded by the Danes in 1616, and acquired by the English by purchase in 1845. CHANDERNAGORE became a French Settlement in 1673, and, though twice taken by the English, is still a French possession.

In 1759 Burdwan (which then included the present Hooghly District), Midnapore and Chittagong were assigned to the East India Company by Mir Kasim for the support of troops to be kept up by the Company; and in 1765 the Mughal emperor invested the Company with the *diwani* of Bengal. Hooghly was separated from Burdwan as a separate magisterial charge in 1795, and in 1819 it was constituted a separate revenue jurisdiction. Many changes have taken place in the area of Hooghly from time to time, owing to transfers to and from neighbouring Districts, the most important being the erection of HOWRAH into a separate magisterial charge in 1843.

The population of the District fell from 1,119,631 in 1872 to 974,992 in 1881, but rose again to 1,034,296 in 1891 and to people. 1,049,282 in 1901. The surface is but little above sea-level and the drainage is deteriorating owing to the silting up of old streams and water-courses. The soil is water-legged, and the District is consequently very unhealthy. About 20 years ago it suffered severely from the malignant Burdwan fever, and, though this has disappeared, fevers of a virulent type are still prevalent. Cholera has been bad in many years, and dysentery also claims its victims. The birth-rate is, outside Calcutta, the lowest in Bengal, and the increase in the population during the last decade is due to immigration.

The table below gives for each sub-division particulars of population in 1901:—

SUB-DIVISION.	Area in square miles.	NUMBER-		Population.	Popula-tion per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
		Towns.	Villages.				
Hooghly ...	443	2	912	805,715	1,820	-0.3	80,080
Serampore	843	1	783	413,178	1,226	+3.3	40,020
Arambagh	406	2	656	527,350	1,298	+0.8	34,331
DISTRICT TOTAL ...	1,191	5	2,351	1,049,282	831	+1.4	114,630

The density of the population is greater than in any other District of West Bengal except Howrah. Except on the crowded

high bank of the Hooghly, it is highest in the south and decreases towards the north and west, where alone it falls below the rate of 800 persons to the square mile. The only part of the District which showed any marked advance in the decade ending in 1901 was Serampore thanā, where the increase exceeded 17 per cent., the actual addition to its population being about the same as that for the District as a whole. Of the towns Hooghly itself, including Chinsura, the head-quarters of the District, is decadent, but SERAMPORE, the great industrial centre, and BHADRESWAR are growing rapidly; the other chief towns are UTTARPARA, BAIDYABATI and BANSBARIA, all lying along the HOOGHLY, and ARAMBAGH, the head-quarters of the sub-division of the same name. There is a large immigration from the neighbouring Districts especially from Bānkurā, and the mills attract numerous labourers from Bihār, the United Provinces, Chota Nagpur and Cuttack. Oriyās are employed as domestic servants and *pālkī* bearers, while labourers from Chota Nagpur and Cuttack work in the brick fields and elsewhere during the dry season. On the other hand a large number of natives of the District find employment in Calcutta as petty shop-keepers and clerks. The vernacular spoken is the dialect known as Central Bengali. Hindus number 861,116 or 82 per cent. of the population and Musalmāns 184,577 or 17·6 per cent., while of the remainder 2,766 are Animists and 759 Christians. The Muhammadans, who are chiefly Shaikhs, are found chiefly in the head-quarters sub-division, where Hooghly and Pandua have long been centres of Muhammadan influence.

Their
castes and
occupa-
tions.

The most numerous Hindu castes are those of the semi-aboriginal Bāgdis (189,000), Kaibartas, the great race-caste of Midnapore (157,000), Brāhmans (73,000) and Sadgops, formerly the dominant caste of Gopbhūm (59,000). Of the population 54 per cent. are supported by agriculture, an unusually small proportion for Bengal, 20 per cent by industries, 2·5 per cent. by commerce, and 3·8 per cent by the professions.

Christian
Missions.

A Portuguese mission at Bāndel maintains a school attended by about 75 boys. The United Free Church Rural Mission possesses 2 mission schools and a zanāna mission house in addition to 4 out-stations. A school, formerly a college, founded in 1812 by the famous missionaries, Marshman, Ward and Carey, and a training school for native pastors of the Baptist Church are conducted by the mission at Serampore.

General
agricultur-
al condi-
tions and
principal
crops.

The alluvial soil is extremely fertile and produces good rice crops. A strip 10 miles broad along the west bank of the Damodar receives the spill waters of that river, and but little rice can be grown on it, but it produces magnificent cold weather crops of mustard and pulses, and also fine sugarcane.

HOOGHLY DISTRICT.

The salient agricultural statistics for 1903-04 are reproduced below in square miles:—

Sub-division.	Total.	Cultivated.	Culturable waste.	Irrigated from canals.
Hooghly	442	194	75	12
Serampore	343	173	26	...
Arāmbāgh	406	183	63	...
TOTAL	1,191	550	164	12

Rice is the principal crop ; large quantities of the fine kinds are grown for the Calcutta market, while coarse rice is imported for local consumption. The winter harvest is the most important crop. Sugarcane, jute and betel-leaf (*Piper betel*) are extensively grown, and the District is noted for its market gardens ; potatoes, yams, cauliflowers, cabbages and brinjals (*Solanum melongena*) are grown in great quantities, especially in the Serampore sub-division, for sale in Calcutta.

During the last 30 years a series of drainage projects have been carried out to drain the numerous marshes; and the result has been to convert many square miles of marshy country into fertile plough land. Little advantage has been taken of the Land Improvement and Agriculturists' Loans Acts, the average sums advanced annually during the decade ending in 1901-02 being only Rs. 2,500.

Pasturage is deficient, and the local cattle are poor and ill-fed. They graze on the stubble and, while the crops are on the ground, are stall fed with rice straw. Sheep are fattened for the Calcutta market, especially in Pandua thāna.

The ordinary crops are irrigated only in seasons of drought, but potatoes, sugar-cane and betel require plentiful irrigation, the water being lifted from the nearest river, *khāl* or tank. Some irrigation takes place from the EDEN and MIDNAPORE Canals.

A valuable description of fine sand used for mortar is dug up from the old bed of the Saraswati river at Magra, and limestone is quarried in tracts bordering on the Midnapore District.

In the early days of the East India Company silk and cotton fabrics to the annual value of about 10 lakhs were woven, and though these industries have declined, they are still important, and superior cotton fabrics fetch high prices. Silk and *tassar* fabrics are manufactured in the Arāmbāgh sub-division, and silk handkerchiefs in Serampore town. The chief centres of the Arts and manufac-tures,

cotton weaving industry are at Serampore, Haripâl and Khanyân, the weavers in Serampore and its neighbourhood using an improved hand loom with a fly shuttle. Silk and cotton cloths are dyed by the weaving classes, and in Serampore town silks are dyed and colour-printed. Some *chikan* work (embroidery) is done in Dhaniâkhâli thâna. Gunny cloth is manufactured at Bâlughât, and jute and hemp rope at Châtra, Sankarpur, Nâbagrâm and Khalsini. Castor and mustard oils are largely manufactured. Brass and bell-metal utensils are made in several places, especially in the neighbourhood of Bânsbâria and Kâmârpâra. A colony of carpenters near Chandernagore works for the Calcutta shops, and in Goghât thâna ebony wood work is manufactured, the articles finding a ready sale in Calcutta and the neighbouring Districts. Baskets are made at Mâyâpur, Bandipur and Magrâ, and good mats are woven at Serampore, Bandipur, Akri and Borai. Common pottery-ware is made at Bhadreswar and Sûkîndâ, and large quantities of bricks, tiles and *surki* are manufactured, chiefly in the Serampore sub-division. A cotton mill at Serampore employs 800 hands, while 23,000 earn a livelihood in the jute mills at Serampore, Rishrâ, Châmpdâni, Telinipâra, and Chandernagore. The Victoria Chemical Works at Konnagar produced in 1903-04 an outturn of 900 tons of chemicals.

Commerce. The chief exports are fine rice, paddy, pulses, silk, indigo, jute and hemp rope, cotton cloth, gunny bags, bricks, tiles and vegetables; and the imports, common rice, English piece-goods, twist and yarn, salt, lime from Burdwan and Sylhet, tobacco, coal, kerosene oil, *ghâ*, spices and timber. The principal marts are Seorâphuli, Magrâ, Bhadreswar and Bâli Diwânganj, at all of which agricultural produce is collected for despatch, chiefly to Calcutta. The hand-loom cotton fabrics are sold at Sâlkha *hât* in Howrah District. Most of the important trade centres have the advantage of excellent means of transport by rail, river, canal and road. Pack bullocks are largely used in Arambagh.

Railways. The east of the District is well provided with railways. The East Indian Railway (broad gauge) runs through it for a distance of about 41 miles, and has 18 stations within the District. The Târakeswar branch of this railway, 22 miles in length, accommodates the pilgrim traffic to the famous temple of Târakeswar. The Naihati branch leading to the Jubilee Bridge over the Hooghly establishes communication with the Eastern Bengal State Railway. The Bengal Provincial Light Railway (2 feet gauge) leaves the East Indian Railway at Magrâ and joins the Târakeswar branch at Târakeswar; recently this line has been extended to Tribeni. The Howrah-Sheakhâla Steam Tramway (2 feet gauge) lies partly, and an extension of the Howrah-Amra Light Railway (2 feet gauge) from Jagâballabhpur to Châmpdânga almost wholly, within the District. Other lines

have been projected, including the Hooghly-Kâtwa extension and the Burdwan-Howrah chord line of the East Indian Railway, and the Bishnupur-Howrah chord line of the Bengal-Nâgpur Railway.

The Grand Trunk Road from Calcutta crosses the Hooghly at ^{Road.} Paltâ and traverses the District for 37 miles, being joined at Ghireti by a branch from Salkhia through Serampore; it is maintained by the District board, the expenditure being met from Provincial funds. There are in addition 506 miles of District roads, of which 78 are metalled, and 844 miles of village roads. The old Benares road was formerly a military road, but it is now in a neglected condition, being annually flooded by the water of the Damodar. The road from Tribeni to Guptipâra formed the old through-route from Calcutta to Nabadwip, Murshidâbâd, Rangpur, and Darjeeling. Other roads connect Chinsura with Dhanikhâli and Khânpur, Hooghly with Majnân, Magrâ with Khânpur, Pandua with Kâlna, Bainchi with Dasghârâ, Chandernagore with Bholâ, Baidyabâti with Târakeswar, Nabagrâm with Chaspur, Arâmbâgh with Tetulmâri, Uchalan with Midnapore and Mâyapur with Jagatpur, *cis* Khânakul. The roads in the Arâmbâgh subdivision are mostly only fair-weather tracks and are barely passable by bullock carts in the rains.

A daily service of steamers plies on the Hooghly between Water Calcutta and Kâlna in Burdwan District and calls at several ^{communi-} places in the Hooghly District for passengers and cargo. ^{cations.}

The District is practically immune from famine, but in 1866 ^{Famine.} some relief measures were necessary, and in 1874 there was slight distress in the northern thânas.

For administrative purposes the District is divided into 3 District sub-divisions with head-quarters at CHINSURA, SERAMPORE and ARAMBAGH. The Magistrate-Collector is also Collector of ^{sub-divi-} sions and ^{sions and} staff. HOWRAH, which is subordinate to Hooghly for revenue purposes. He is assisted at head-quarters by a staff of a Joint Magistrate and 6 Deputy Magistrate-Collectors. The Serampore sub-division is in charge of a Joint Magistrate assisted by a Deputy Magistrate-Collector and a sub-deputy collector. The sub-divisional officer of Arâmbâgh is a Deputy Magistrate-Collector, and he has a sub-deputy collector subordinate to him. Chinsura is the head-quarters of the Commissioner of the Burdwan Division and the Civil Surgeon; a second Civil Surgeon is stationed at Serampore.

The District and Sessions Judge is also Judge of Howrah; Civil and subordinate to him for civil work are 2 Sub-Judges, a Small criminal Court Judge and 8 Munsifs, of whom 2 sit at Hooghly, ^{justice.} 3 at Serampore and 3 at Arâmbâgh. The Additional District and Sessions Judge of the 24-Parganas is also Additional District and Sessions Judge of Hooghly. The criminal courts include these of the Sessions and Additional Sessions Judges, the District Magistrate, and the above-mentioned stipendiary magistrates.

With the exception of dacoity, the District is comparatively free from serious crime. The French settlement of Chander-nagore used to be a centre for the smuggling of opium and spirits, but this illicit trade has now been checked.

Land revenue.

The current land revenue demand, including that for Howrah, amounted in 1903-04 to 13·64 lakhs payable by 4,229 estates. The greater portion of the District is permanently settled, and the total demand from other classes of estates is only Rs. 60,000. Owing to the careful assessment at the time of the permanent settlement, the incidence of land revenue (which amounts to Rs. 3-0-8 per cultivated acre) is higher than in any other District in Bengal, except Burdwān, of which Hooghly at that time formed part. As in that District, *patni* and *darpatni* tenures are common. Rents are high and have risen of late years. First class paddy land, which was formerly rented for Rs. 1·1-4 an acre, now pays from Rs. 15-12 to Rs. 27, and the rent of inferior paddy land has risen from between Rs. 5-10 and Rs. 6-12 to between Rs. 7-14 and Rs. 10-2 an acre. Mulberry and tobacco lands are rented at from Rs. 18 to Rs. 45 an acre, and sugarcane land at from Rs. 18 to Rs. 36.

The following table shows the collections of land revenue and of total revenue, under the principal heads, in thousands of rupees :—

	1880-81.	1890-91.	1900-01.	1903-04
Land revenue	13,37*	14,20*	13,36*	13,83*
Total revenue	21,90	25,90	23,78	24,23

* Includes Howrah.

Local and municipal government.

Outside the 8 municipalities of HOOGHLY (with CHINSURA), SERAMPORE, UTTARPARA, BAIDYANATI, BHAIRESWAR, KOTRANG, BANSBARIA and ARAMBAGH, local affairs are managed by a District board with subordinate local boards in each sub-division, besides 5 union committees. In 1903-04 the total income was Rs. 1,48,000, of which Rs. 79,000 was derived from Provincial rates; the expenditure amounted to Rs. 1,68,000, of which Rs. 98,000 was spent on civil public works. The Howrah-Sheakhalā Light Railway was constructed in 1847 under the auspices of the District board, which guarantees 4 per cent. on the capital and receives half the net profits above that sum. Under this agreement the District board paid Rs. 6,243 and Rs. 3,471 in 1896-97 and 1898-99 respectively; since that time the financial position has improved, and though the board has had sometimes to pay smaller sums, it has also occasionally received a share of the profits.

Embankments have been constructed along portions of the Public Dwārkeswar, Sankra, Rūpnārājani, Dāmodar, Kāna Dāmodar, works. Kāna Nadi and Saraswati rivers. The Dānkuni marsh was drained in 1873, and 20 square miles of almost valueless and very malarious country were thereby converted into fertile arable land. A small portion of the District is irrigated from the EDEN CANAL. The Hooghly is spanned at Naihāti by a large cantilever bridge which was opened in 1887 (see HOOGHLY river).

The District contains 13 police stations and 23 out-posts. The Police force subordinate to the District Superintendent of Police in 1903 and jails consisted of 3 inspectors, 42 sub-inspectors, 67 head-constables and 699 constables. Chinsura is the head-quarters of a company of military police 100 strong, which is utilized, when necessary, to maintain order among the coolies working in the numerous mills on both sides of the Hooghly. There is one policeman to every 2·1 miles of area and to every 1,883 persons. A rural police force consists of 276 *daffudārs* and 2,804 *chaukidārs*. The District jail at HOOGHLY can hold 437 prisoners, and sub-jails at Serampore and Arāmbagh have a total accommodation for 43.

In 1901 the proportion of literate persons was 10·6 per cent. Education. (19·7 males and 1·4 females). The proportion of literate females is higher than in any other part of Bengal except Calcutta. The total number of pupils under instruction was 53,956 in 1892-93 and 43,911 in 1900-01, while 43,667 boys and 3,549 girls were at school in 1903-04, being respectively 55·2 and 4·5 per cent. of the children of school-going age. The number of educational institutions, public and private, in the latter year was 1,469, including two Arts colleges, 97 secondary schools, 1,224 primary schools and 145 other special schools. The expenditure on education was 3·45 lakhs, of which Rs. 60,000 was met from Provincial funds, Rs. 42,000 from District funds, Rs. 5,000 from municipal funds and 1·81 lakhs from fees. The principal educational institutions are in Hooghly town, but one of the Arts colleges is at UTTARPARA, where there is also a large public library given by Babu Jay Krishna Mukharji, the founder of the college. Public libraries are also maintained at Hooghly and Serampore.

In 1903 the District contained 13 dispensaries, of which 6 Medical had accommodation for 131 in-door patients; the cases of 71,000 out-patients and 2,111 in-patients were treated, and 5,308 operations were performed. The expenditure was Rs. 32,000, of which Rs. 4,000 was met by Government contributions, Rs. 16,000 from local and Rs. 7,000 from municipal funds, and Rs. 4,000 from subscriptions. Besides these, there were in 1903 one police hospital and one railway hospital at Hooghly, and 16 private hospitals in the District. ..

Vaccina-
tion.

Vaccination, which is compulsory within the municipal areas, is not making great progress in the District. In 1903-04 the number of persons successfully vaccinated was 25,000, representing 27 per thousand of the population.

[Sir W. W. Hunter, *Statistical Account of Bengal*, vol. iii, 1876; G. Toynbee, *A sketch of the administration of the Hooghly District from 1795 to 1845*, Calcutta, 1888; *Hooghly Medical Gazetteer*; and Lt.-Col. D. G. Crawford, I.M.S., *A brief history of the Hooghly District*, Calcutta, 1903.]

Hooghly Sub-division.—Head-quarters sub-division of Hooghly District, Bengal, lying between $22^{\circ} 52'$ and $23^{\circ} 14'$ N., and $87^{\circ} 58'$ and $88^{\circ} 30'$ E., with an area of 442 square miles. The sub-division is a flat alluvial tract intersected by numerous streams and containing a number of swampy depressions. Its population was 308,715 in 1901, compared with 309,616 in 1891, the density being 698 persons to the square mile. It contains 2 towns, HOOGHLY with CHINSURA, its head-quarters (population 29,383), and BANSBARIA (6,473) and 942 villages. In addition to Hooghly and Chinsura, SATGAON, BANDEL and PANDUA possess historical and TRIBENI some religious interest. MAGRA is an important mart.

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Serampore Sub-division.—South eastern sub-division of Hooghly District, Bengal, lying between $22^{\circ} 40'$ and $22^{\circ} 55'$ N., and $87^{\circ} 39'$ and $88^{\circ} 22'$ E., with an area of 343 square miles. The sub-division consists of a level strip of land bounded on the east by the Hooghly, and exhibits all the features of a thickly peopled deltaic tract. Its population was 413,178 in 1901, compared with 399,987 in 1891. It contains 5 towns, SERAMPORE, its head-quarters (population 44,451), UTTARPARA (7,036), BAIDYABATI (17,174), BHADRESWAR (15,150), and KOTRANG (5,144) and 783 villages. The municipalities, which are all situated along the bank of the Hooghly, contain a large industrial population, and the sub-division is more thickly populated than the rest of the District, there being no fewer than 1,205 persons to the square mile. A shrine at TARAKESWAR is largely resorted to by pilgrims.

Arāmbāgh Sub-division.—Western sub-division of Hooghly District, Bengal, lying between $22^{\circ} 36'$ and $23^{\circ} 2'$ N., and $87^{\circ} 30'$ and $87^{\circ} 59'$ E., with an area of 406 square miles. The sub-division is a low-lying deltaic tract, which is generally looked on as the unhealthiest part of the district; and its crops are often damaged by floods caused by the Damodar spilling over its right bank. Thana Goghāt on the western side of the Dwarkeswar has a laterite soil and is not subject to floods. Its population was 327,389 in 1901, compared with 324,693 in 1891, the density being 806 persons to the square mile. It contains one town, ARAMBAGH, its head-quarters (population 8,281) and 658 villages. The chief marts are at STAMBAZAR, KHANAKUL and BALL. Bhitargarh, 8

but of the original building, sacked and destroyed by the Muhammadans about the year 1629. It was rebuilt in 1660 by Gomez de Soto and called the convent of Nossa Senhora D'Rojario; the large hall on the east of the church was added about 1820. The title on which the property is held is a *farmān* assigning 777 *bighas* of land to the community, granted by the emperor Shah Jahān in 1633 and subsequently confirmed in 1646. The Circuit House is a fine building which was formerly the residence of the Daoity Commissioner. Bāndel is famous for its cream cheeses.

Bānsbāria (*Bānsbatti*, the place of bamboos).—Town in the head-quarters sub-division of Hooghly District, Bengal, situated in $22^{\circ} 53'$ N. and $88^{\circ} 24'$ E. on the east bank of the Hooghly. Population (1901) 6,473. The town contains a group of 3 temples, of which the best known is that of Hanseswari with 13 pinnacles and an image of Siva in each. It was built in 1819 by Rāni Sankarī Dāsī, the wife of a zamindār of the place, at a cost of 5 lakhs of rupees, and was formerly protected against the Marāthās by a fort armed with 4 cannon. The group of temples occupies 15 acres of ground. Several *tels* or Sanskrit schools were formerly maintained at Bānsbāria, but Sanskrit studies are now on the decline. A considerable trade in brass and bell-metal ware and bricks is carried on. Bānsbāria was constituted a municipality in 1869. The average income for the decade ending in 1901-02 was Rs. 6,600 and the expenditure Rs. 5,600. In 1903-04 the income was Rs. 9,000, of which Rs. 4,000 was derived from a tax on persons; the expenditure was Rs. 6,600. The old village of TRIBENI is included in the municipal area.

Bhadreswar.—Town in the Serampore sub-division, Hooghly District, Bengal, situated in $22^{\circ} 50'$ N. and $88^{\circ} 21'$ E. near the right bank of the Hooghly. Population (1901) 15,150. It is a thriving town and has the largest rice market in the District. The Victoria Jute Mills in the town give employment to 5,700 hands. Bhadreswar was constituted a municipality in 1869. The average income for the decade ending in 1901-02 was Rs. 12,000, and the expenditure Rs. 11,000. In 1903-04 the income was Rs. 16,000, of which Rs. 7,000 was derived from a tax on houses and lands, and the expenditure was Rs. 14,000.

^{2/} Chinsurā.—Town in Hooghly District, Bengal, situated in $22^{\circ} 53'$ N. and $88^{\circ} 24'$ E. on the right bank of the Hooghly river, a short distance to the south of Hooghly town. Chinsura is now included in the Hooghly municipality (see HOOGHLY town), and the 2 towns contained in 1901 a joint population of 29,383. The Dutch established themselves at Chinsura in the early part of the 17th century and held the place till 1825, when it was ceded by the Netherlands to Great Britain in part exchange for the English possessions in Sumatra. It was formerly used as a military invalid dépôt and for regiments arriving from or

proceeding to England, but in 1871 the military station was abandoned and the barracks were leased to the residents and utilized for schools, a post office and other public purposes. Chinsura contains the courts, the Imāmbāra Hospital with 40 beds, and a female hospital with 13 beds. The Church and a large house on the river banks at a short distance to the north of it were built by the Dutch, the latter being the official residence of the Governor. The Armenian Church erected in 1695 is a building of considerable antiquarian interest. Chinsura was the head-quarters of the Burdwān Division from 1879 to 1884; they were then removed to Burdwān, but were again transferred to Chinsura in 1896. The Hooghly college is finely situated on the bank of the river near the Church; it was founded and endowed in 1836 from a portion of the trust fund of the Saiyidpur estate in the JESSORE District. There are 150 students in the college which teaches up to the B. A., and in some subjects to the M. A., standard of the Calcutta University, and 200 boys in a school attached to the college. This school, the Chinsura Free Church Mission school and the Chinsura Training Academy are all higher English schools. A public library was established in 1854 and is partly endowed.

Hooghly Town.—Head-quarters of Hooghly District, Bengal, situated in $22^{\circ} 55' N.$ and $88^{\circ} 24' E.$ on the right bank of the Hooghly river and on the East Indian Railway. Hooghly was founded by the Portuguese in 1537 on the decay of the royal port SATGAON. At Gholghāt, close to the present Hooghly jail, the ruins are still visible of a fortress which formed the nucleus of the town and port of Hooghly. Exasperated by the havoc wrought by the Portuguese pirates at Chittagong, and in order to revenge himself for the Hooghly governor's refusal to assist him when he was in revolt against his father 8 years previously, the emperor Shāh Jahān sent a Mughal force against the town in 1632 which carried it by storm after a three and-a-half months' siege. Over 1,000 Portuguese were slaughtered, and more than 4,000 men, women, and children were made prisoners of war, and the place was then established as the royal port in lieu of Sātgaon. The Portuguese were allowed to return to Hooghly in 1633, the emperor making them a grant of 777 bighas of land at BANDEL. The English factory at Hooghly dates from 1651, having been established under a *farmān* granted by the emperor to Dr. Boughton, a surgeon in the East India Company's service, who had cured his favourite daughter of a dangerous illness. In 1686 a dispute took place between the English factors at Hooghly and the Nawāb of Bengal, and a military force was despatched by the Home authorities to strengthen and protect the Company's factories there. An accident precipitated the rupture. In October 1686 three English soldiers were set upon and beaten

in the Hooghly bazar and taken prisoners to the governor's house. After some street fighting the battery and the governor's house were taken by the English, who subsequently withdrew under an armistice to Calcutta or Sūtānuti as it was then called. This was the first collision between the English and the Muhammadan government in Bengal.

Hooghly was the head-quarters of the Division from 1871 to 1875, and from 1879 to 1884 they were at its suburb Chinsura; they were then removed to Burdwan, but were transferred to Chinsura in 1896. The place is now decadent and its population with that of Chinsura, with which it is incorporated as a municipality, has declined from 34,761 in 1872 to 29,393 in 1901. Hindus constitute 82·8 per cent. and Musalmans 16·6 per cent. of the population. The municipality was created in 1865. The average income for the decade ending in 1901-02 was Rs. 50,000 and the expenditure Rs. 47,000. In 1903-04 the total income was Rs. 60,000 including Rs. 28,000 derived from a tax on houses and lands, Rs. 18,000 from a conservancy rate, Rs. 5,000 from a tax on vehicles and Rs. 3,000 from tolls. The incidence of taxation was R. 1-13-10 per head of the population. In the same year the expenditure was Rs. 53,000, of which Rs. 4,000 was spent on lighting, Rs. 3,000 on drainage, Rs. 28,000 on conservancy, Rs. 5,000 on roads and Rs. 900 on education. The municipality maintains 51 miles of metalled and 76 miles of unmetalled roads. The Grand Trunk Road, which passes through the town, and a few short lengths of road in the old cantonment are kept up by Government. The Imāmbāra is a Shiah mosque which was completed in 1861 at a cost of 2·2 lakhs from funds bequeathed by a wealthy Shiah nobleman, Muhammed Mohsin. The other principal buildings are the municipal office and jail; the latter has accommodation for 437 prisoners, who are chiefly employed on bag-sewing for the neighbouring jute mills and oil-pressing. The chief educational institutions are the Hooghly college at CHINSURA, possessing a branch in Hooghly itself, a Training college for school-masters and the Madrasa.

Khanakul.—Village in the Arambagh sub-division, Hooghly District, Bengal, situated in 22° 43' N. and 87° 52' E. on the west bank of the Kāna Nadi. Population (1901) 886. There is some trade in brass-ware, and cotton fabrics of a superior quality are manufactured in the neighbourhood. Vegetables are extensively grown for the Calcutta market. A large temple to Siva stands on the river bank.

Kotrang.—Town in the Serampore sub-division, Hooghly District, Bengal, situated in 22° 41' N., and 88° 21' E. on the right bank of the Hooghly. Population (1901) 5,944. Bricks, curki and tiles are made in large quantities, and rope and string

are also manufactured. Kotrang was constituted a municipality in 1869. The average income and expenditure for the decade ending in 1901-02 were Rs. 4,100 and Rs. 3,800 respectively. In 1903-04 the income was Rs. 5,500, half of which was derived from a tax on persons, and the expenditure was Rs. 4,650.

Magrā.—Village in the head-quarters sub-division of Hooghly District, Bengal, situated in $22^{\circ} 59'$ N. and $88^{\circ} 22'$ E. on the Magrā *khāt*. Population (1901) 96. Magrā is a station on the East Indian Railway and the terminus of the Magrā-Tarakeswar Light Railway; it is an important mart with an extensive trade in grain and tobacco. Large quantities of sand from the bed of the old Saraswati are exported from the neighbourhood to Calcutta and elsewhere for building purposes.

Pandua.—Village in the head-quarters sub-division of Hooghly District, Bengal, situated in $23^{\circ} 5'$ N. and $88^{\circ} 17'$ E. on the East Indian Railway, and the Grand Trunk Road. Population (1901) 2,381. It was formerly noted for its large manufacture of native paper, but the industry has disappeared. In ancient times Pandua, which is now only a small village, was the seat of a Hindu Rājā and was fortified by a wall and trench 5 miles in circumference, traces of which can still be seen. There is also a tower (120 feet high), built to commemorate a victory gained by the Muhammadans over the Hindus in 1340.

Sātgaon.—Ruined town in Hooghly District, Bengal, situated in $22^{\circ} 58'$ N. and $88^{\circ} 23'$ E. to the north-west of Hooghly town. Population (1901) 153. Sātgaon was the mercantile capital of Bengal from the days of Hindu rule until the foundation of Hooghly by the Portuguese. Its decay dates from the silting up of the channel of the Saraswati, and nothing now remains to indicate its former grandeur, except a ruined mosque, the modern village consisting of a few miserable huts. Sātgaon is said to have been one of the resting-places of Bhāgirathi. De Barros writes that it was "less frequented than Chittagong, on account of the port not being so convenient for the entrance and the departure of ships." Purchas states it to be "a fair citie for a citie of the Moores, and very plentiful, but sometimes subject to Patnaw." In 1632, when Hooghly was declared a royal port, all the public offices were withdrawn from Sātgaon, which rapidly fell into ruins.

Serampore Town (Srirāmpur).—Head-quarters of the sub-division of the same name in Hooghly District, Bengal, situated in $22^{\circ} 45'$ N. and $88^{\circ} 21'$ E. on the west bank of the Hooghly river, opposite Barrackpore. Its population increased from 24,440 in 1872 to 25,559 in 1881, to 35,952 in 1891 and to 44,451 in 1901, the progress being due to the important mills which it contains. Of the population 80 per cent. are Hindus and 19 per cent. Musalmāns, while of the remainder 405 are Christians.

Serampore was originally a settlement of the Danes who remained here until 1845, when by a treaty with the King of Denmark all the Danish possessions in India, consisting of the towns of Tranquebar and Serampore (or Frederiksnagar, as it was called) and a small piece of ground at Balasore, formerly occupied as a Dutch factory, were sold to the East India Company for 12½ lakhs of rupees. Serampore was the scene of the labours of the famous Baptist missionaries, Carey, Marshman and Ward, and the mission, in connection with which its founder established a church, school and library, still flourishes. Two great *melas*, the Snānjātra and the Rathjātra, are annually held in the Māhesh and Ballabhpur suburbs of the town. At the first the image of Jagannāth is brought from his temple at Māhesh and bathed; in the second and more important the image is dragged to the temple of a brother god, Rādhāballabh, and brought back after an 8 days visit. During these days an important fair is held at Māhesh, which is very largely attended, as many as 50,000 persons being present on the first and last days of the festival. The town contains several important mills, and silk and cotton weaving by hand is also largely carried on; other industries are silk-dyeing, brick-making, pottery and mat-making.

Serampore was constituted a municipality in 1865. The average income for the decade ending in 1901-02 was Rs. 55,000, and the expenditure Rs. 53,000. In 1903-04 the income was Rs. 60,000, including Rs. 29,000 derived from a tax on houses and lands, Rs. 16,000 from a conservancy rate, Rs. 5,000 from tolls, Rs. 1,600 from a tax on vehicles, Rs. 1,500 from a tax on professions, etc., and Rs. 2,000 from the municipal market, which is held in a corrugated iron building. The incidence of taxation was R. 1-3-5 per head of the population. In the same year the expenditure was Rs. 54,000, the chief items being Rs. 3,000 spent on lighting, Rs. 9,000 on drainage, Rs. 19,000 on conservancy, Rs. 7,000 on medical relief, Rs. 4,000 on roads and Rs. 2,000 on education. The town contains 37 miles of metalled and 18 miles of unmetalled road.

The chief buildings are the courts, which occupy the site of the old Danish Government House, the school (late the college), the Danish (now the English) church built by subscription in 1805, the Mission chapel, the Roman Catholic chapel, a sub-jail with accommodation for 28 prisoners, which was formerly the Danish court-house, a dispensary with 42 beds, and the temples of Rādhāballabh at Ballabhpur and of Jagannāth at Māhesh. The so-called college which was founded by the 3 Serampore missionaries is now a high school. It possesses a fine library in which are several historic pictures (notably one reputed to be of Madame Grand) and had 312 boys on the rolls in 1902; attached to it is a training school for native pastors of the Baptist Church. There

are 3 other high schools, 6 middle vernacular schools and 15 primary schools, of which 4 are for girls. A public library is maintained by subscriptions.

Syāmbazar.—Village in the Arambagh sub-division, Hooghly District, Bengal, situated in $22^{\circ} 54'$ N. and $87^{\circ} 34'$ E. Population (1901) 3,494. Its weavers are famous for their *tasar* silk fabrics, and it carries on some trade in *tasar* cocoons and ebony goods. Badanganj, a village about a mile distant, has a large timber trade. It has an old *sarai* or rest-house dating, according to an inscription on it, from 1747.

Tarakeshwar.—Village in the Serampore sub-division, Hooghly District, Bengal, situated in $22^{\circ} 53'$ N. and $88^{\circ} 2'$ E. Population (1901) 1,032. Tarakeswar is famous for its shrine dedicated to Siva, which is resorted to by large crowds of pilgrims all the year round. This temple is richly endowed with money and lands, supplemented by the offerings of wealthy devotees. It is under the management of a *mahant* or priest, who enjoys its revenues for life. Two large religious gatherings are held annually at Tarakeswar. The first of these, the Sivarātri, takes place in February; and the ceremonies enjoined on this occasion are considered by the followers of Siva to be the most sacred of all their observances. The three essential rites of the Sivarātri are:—fasting during the day, holding a vigil during the night and worshipping Siva as the marvellous and interminable *lingam*, thereby typifying the exaltation of Siva-worship over that of Vishnu and Brahmā. It is estimated that 20,000 people visit the shrine on the occasion of this festival. A fair held at the same time continues for 3 days. The second great religious festival is the Chaitra Sankranti (or New Year's eve) falling in April, which is also the day of the swinging festival. The temple is then visited by persons who come for penance, or to lead a temporary ascetic life, in fulfilment of vows made to Siva at some crisis of their lives. The swinging festival of the present day is a very harmless affair compared with what it was formerly; the votaries being merely suspended by a belt, instead of by hooks pierced through the flesh. The fair on this occasion lasts 6 days and is attended by some 15,000 people. A branch of the East Indian Railway from Seorāphuli to Tarakeswar was opened in 1885, and the village can also be reached by the Bengal Provincial Light Railway.

Tribeni Village (The three streams).—Village in the headquarters sub-division of Hooghly District, Bengal, situated in $22^{\circ} 59'$ N., and $88^{\circ} 26'$ E. and now included within Bānsbāria municipality and connected with Magrā by a branch of the Bengal Provincial Railway. It derives its name from its situation at the junction of the Ganges or Hooghly, the Saraswati and the Jamunā. The last-named stream flows into the Hooghly on its left bank,

opposite the southern extremity of an extensive island in the middle of the river facing Tribeni. North of the Saraswati is the Tribeni *ghāt*, a magnificent flight of steps attributed to Mukund Deo, the last of the Gajapati kings of Orissa, 1559-1568. South of the *ghāt* lies the village of Tribeni, which is considered to possess great sanctity. The Rev. Mr. Long, in an article in the Calcutta Review published many years ago, says that Tribeni was one of the four great centres of Hindu learning, the others being Nabadwīp, Sāntipur, and Guptipāra. Tribeni formerly contained over 30 Sanskrit schools and it was also once noted for its trade.

South of Tribeni village stands a famous mosque, which was built with materials obtained from an older Hindu temple and contains the tomb of Jafar Khān, described by the late Professor Blochmann in the Journal of the Asiatic Society of Bengal, vol. xxxix, part I, for 1870, p. 282. The principal Hindu festivals held at Tribeni are the following:—Makara Sankrānti or Uttarāyan, the day on which the sun enters Capricorn, takes place in January on the last day of the Hindu month of Paus and the first day of the succeeding month of Māgh. The great bathing festival on Sāgar Island is held at this time, and a *mela* or fair at Tribeni, which is attended by about 8,000 persons; Bisava Sankrānti, held in honour of the sun at the time of the vernal equinox, falling in February; Bāruni, the great bathing festival of Bengal, in honour of Varuna, the god of the waters, held in February or March; Dasaharā, held in June, in commemoration of the descent of the goddess Gangā from heaven, to save the souls of the 60,000 sons of king Sagur, who were reduced to ashes for the crime of assaulting a Kṛāhman sage; Kārtik Pūja, held in November, in honour of Kārtikeya, son of the goddess Durgā. All these gatherings form occasions for trade.

Uttarpāra.—Town in the Serampore sub-division, Hooghly District, Bengal, situated in $22^{\circ} 40' N.$, and $88^{\circ} 21' E.$ on the right bank of the Hooghly river, immediately north of Bally in the Howrah District. Population (1901) 7,036. Uttarpāra was the family residence of the enlightened zamindār, Jay Krishna Mukherji, and has a public library. This institution is especially rich in works on local topography and books published in India. It consists in part of the library slowly amassed by the *Hurkāru* newspaper in Calcutta during the first half of the 19th century. The building is in the pillared Italian style, and is one of the most imposing edifices on the Hooghly. The town also contains a college and a charitable association now known as the Uttarpāra Hitakāri Sabha, aided by Government. Uttarpāra was constituted a municipality in 1865. The average income for the decade ending in 1901-02 was Rs. 14,000, and the expenditure Rs. 13,000.

In 1903-04 the income was Rs. 17,000, half of which was derived from a tax on houses and lands, and the expenditure was Rs. 17,500.

Howrah District (*Hābīra*).—Small District in the Burdwan Division, Bengal, lying between $22^{\circ} 13'$ and $22^{\circ} 47'$ N., and $87^{\circ} 51'$ and $88^{\circ} 22'$ E., with an area of 510 square miles. Howrah, which is a separate magisterial charge, is for revenue purposes subordinate to HOOGHLY District, by which it is bounded on the north; its western and eastern boundaries are the RUPNARAYAN and the HOOGHLY rivers, which separate it from Midnapore and the 24-Parganas and meet at its southern angle.

The District is intersected from north to south by the DAMODAR, which falls into the Hooghly opposite Faltā point. There are many small streams and water-courses, the principal being the Kāna-Dāmodar, a tributary of the river of that name, which rising near Tārakeswar in the Hooghly District, falls into the Dāmodar at Amtā; the Sāaswati, at one time the main channel of the Ganges but now merely a branch of the river Hooghly, which it leaves near Tribeni and, after flowing southwards through Howrah, rejoins at Sānkrail; and the GAIGHATA BAKSHI KHAL which connects the Rūpnārāyan and Dāmodar. The District is studded with depressions lying between the larger rivers, the most important being the Rājapur marsh between the Hooghly and Dāmodar which is now being gradually drained; towards the south the country lies so low as to require protection by costly Government and private embankments.

The surface is covered by alluvium consisting chiefly of sandy clay and sand.

The vegetation is composed almost exclusively of the aquatice and marsh plants to be met with in rice fields, such as *Hydrobla*, *Utricularia*, *Cæsaria*, or of those semi-spontaneous plants that form the village shrubberies of Central Bengal, such as *Glycine*, *Tremula*, *Uraria*, *Solanum*, *Datura*, *Leonotis*, and the like. Waste places are generally covered by a weedy vegetation, and one of the striking features is the extent to which such weeds occur in these places are exotic so far as Bengal is concerned, many of them, such as *Scoparia*, *Ageratum*, *Evolvulus numularifolia*, *Peperomia pellucida*, being originally natives of America.

Wild hogs abound in the south, and a stray leopard is occasionally seen.

Humidity is high but the rainfall is rarely excessive, the average yearly total being 57 inches, of which 5·5 inches fall in May, 10·2 in June, 12 in July, 12·3 in August and 8·1 in September. The climate resembles that of Calcutta and the 24-Parganas: separate statistics of temperature are not available.

Natural calamities.

The District is subject to floods, owing to the sudden rising of the Dāmodar and Rūpnārāyan rivers, and destructive inundations occurred in 1864, 1833 and 1864. Embankments were formerly maintained along both banks of the Dāmodar, but they were breached almost every year and those along the right bank were eventually abandoned in order to preserve those on the left bank of the river. In September 1900 an abnormal rainfall of 24 inches in 48 hours caused extensive floods. Many cattle were drowned, and hundreds of houses destroyed, and the rice crop was ruined over an area of 150 square miles. Destructive cyclones occurred in 1832, 1833, 1842 and 1864, the last wrecking several vessels on the Hooghly. The great earthquake of 1897 caused much damage to brick-built houses in Howrah town.

History.

Howrah, with the rest of the Burdwan Division and the District of Birbhum, formed part of the old Hindu province of Bengal known as Rārh, but very little authentic information exists regarding its early history. The neighbourhood of Howrah city has long been a centre of European trade. When the Portuguese began to frequent the Hooghly river, about 1530, an important mart sprang up at Betor, close to Sibpur, where goods were transhipped from their vessels into small boats in which they were carried to SATGAON, near the modern Hooghly. Betor was abandoned towards the end of the 16th century in favour of Sūtanuti, the site of the modern Calcutta. In 1687 Job Charnock settled temporarily at Ulubaria before he founded Calcutta. In 1819, Hooghly and Howrah were separated from Burdwan, of which they had previously formed part, and made into a separate District. Howrah is still an appanage of Hooghly for revenue purposes, but in 1843 it was constituted a separate magisterial charge.

The people.

The population increased from 635,878 in 1872 to 675,394 in 1881, to 763,625 in 1891 and to 850,514 in 1901. Malaria is prevalent in rural areas owing to the bad drainage, and the mortality from cholera, dysentery and diarrhoea is also high. Details of the population in 1901 for each sub-division are shown below:—

SUB-DIVISION.	Area in square miles.	NUMBER OF—		Population.	Popula- tion per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
		Towns.	Villages.				
Howrah	173	2	356	431,677	2,493	+17.7	52,156
Ulubaria	337	...	1,026	416,227	1,234	+ 5.5	45,563
DISTRICT TOTAL	610	2	1,451	853,814	1,368	+21.4	93,001

NOTE.—Ulubaria has been created a municipality since the census of 1901.

In 1901 a fifth of the population was urban, and dwelt in the two towns of HOWRAH and BALLY which are industrial suburbs of Calcutta. In the whole District there are 1,668 persons to the square mile; excluding Howrah and Bally the density is 1,351, which is still greater than that of any other District in Bengal. Nearly half the increase in the decade ending in 1901 was due to the phenomenal expansion of HOWRAH city. Howrah gains largely by immigration from all the neighbouring Districts, except Calcutta, and also from the United Provinces and Bihar. Most of these immigrants are attracted by the mills, iron-works and other industries in Howrah city, and barely a third of the inhabitants of this busy manufacturing centre are District born. The local vernacular is the central dialect of Bengal. Hindus number 872,544, or 79 per cent. of the population, and Muhammadans 175,123, or 20·6 per cent.; among the remainder are 2,588 Christians.

Nearly all the Muhammadans are Shaikhs, while Knibaritas Their (231,000), the great race-caste of Midnapore, constitute more castes and than two-thirds of the Hindus. Brāhmans (52,000) and the occupations semi-aboriginal Bāgdis (73,000) are also numerous. Of the total population 42 per cent. are supported by agriculture, 26 per cent. by industries, 2·3 per cent. by commerce and 3·7 per cent. by the professions. The proportion of agriculturists is lower, and that of the industrial population higher, than in any District outside Calcutta, many of the people, even in the rural areas, going daily to work in the metropolis.

The bulk of the Christians are Europeans and Eurasians Christian employed in Howrah city; and in 1901 native Christians Missions numbered only 579. The Church of England Zāzāna Mission maintains 3 girls' schools in Howrah attended by 327 pupils, and a Baptist Mission and a branch of the Oxford University Mission also work there. The Church Missionary Society maintains a resident missionary for evangelistic work among the Hindi-speaking population. A small American Mission belonging to a community calling itself "The Church of God" is established in Ulubāria.

The agricultural statistics for 1903-04 are reproduced below in square miles:—

Sub-Division.	Total.	Cultivated.	Culturable waste.	General agricultural conditions and principal crops.
Howrah	173	58	7	
Ulubāria	337	120	16	
TOTAL	510	178	23	

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Owing to the silt deposited by the rivers, the soil is very fertile. The staple product is rice, the winter crop being by far the most important, but wheat, barley, maize, mustard, jute and hemp are also grown. Fodder is abundant, though there are few regular pasture grounds. A market held at Ulubāria every Saturday is largely frequented by dealers in cattle and poultry. Six fairs are held to which agricultural produce is brought for sale, the chief being the Rām Krishna Paramhansa mela. The District is not liable to famine, and the people as a whole are so well off that there is no need for advances under the Loans Acts, except when the crops are damaged by floods.

Irrigation. The Howrah, Rājāpur and Barajalā drainage schemes described below serve also for irrigation purposes in years of drought, when water is let in from the rivers. Some lands on the banks of the Kāna Dāmodar are occasionally watered from the EDEN CANAL.

**Arts and
manufacture.** Domestic industries are few and unimportant. Hand-made paper of an inferior quality is produced on a small scale in Amta thāna. Silkworms are still reared in some parts, the thread being taken to Calcutta and Ghātāl for sale, but the industry is dying out, the annual value of the silk being estimated at Rs. 12,500 only. Earthenware articles are made throughout the District, and the pottery of Sānkrail, Patibhal Chandipur and Bally has a local repute, the annual outturn being valued at Rs. 1,17,030. Tiles are made at Barrackpur in Bally thāna.

But, if home industries are insignificant, the case is far otherwise with those dependent on European methods and worked with European capital, and the bank of the Hooghly is lined with no less than 56 factories employing 51,000 hands. These include 6 cotton mills, 9 jute mills, 7 jute presses, 2 paper mills, 3 flour mills, 5 railway workshops, 4 engineering workshops, 4 iron works, 4 rope works, 4 dockyards, 2 salt-crushing mills, a printing press, lime works and cement works. In 1903-04 the cotton mills contained 176,100 spindles, employed 4,400 hands, and turned out 18 million pounds of goods valued at 56 lakhs. The jute mills with 4,060 looms and 84,000 spindles employed 27,000 hands, and manufactured goods to the value of 251 lakhs. The paper mills at Bally produced paper worth 13½ lakhs. In addition to the larger iron works mentioned above, 16 small firms managed by native agency purchase pig-iron and scrap-iron in Calcutta, and manufacture weights, sugarcane presses, rollers, bolts, plant for oil and jute mills, building and carriage material, railings, iron safes, etc., the outturn being valued in 1901 at 1·39 lakhs. Bricks are extensively manufactured along the right bank of the Hooghly and the Bally Kāl where 91 brick-fields employ 2,660 hands and produce an outturn valued at nearly 4 lakhs. About a third of the fields are worked by native

methods, but the use of pug-mills and Bull's patent kilns is spreading.

For commercial purposes the District forms part of Calcutta. Com-
Howrah city is the terminus of the East Indian and Bengal ^{and Amritā.} Nāgpur Railways, which connect Calcutta with Upper India and the peninsula. The chief articles of export are rice, vegetables, betel-leaves, sugarcane, wheat, flour, coconuts, *hukkas*, hides, cotton cloth, cotton twist, silk, bricks and ropes. The principal imports are rice, wheat, pulses, oilseeds, European piece-goods, kerosene oil, jute, hemp, *ghi*, sugar, spices, cotton, cotton twist and yarn, wine and other liquors, salt, tobacco, timber, iron, straw, potatoes, shoes and glass. The chief centres of trade are Howrah city, BALLY, GHUSURI, SANKHARIA, ULUBARIA and AMITA.

Besides the two great railways mentioned above, the Howrah-Railways Shekhāla and Howrah-Amītā Light Railways have opened out roads. tracts in the north and north-west which were formerly difficult of access. An extension of the Amītā line from Jagatballabhpur to Champadāṅga has been sanctioned. The Grand Trunk Road leading north from Sibpur, and the Orissa Trunk Road, which in this District runs from Ulubāria to the Rūpnārāyān river, are maintained from Provincial funds, their aggregate length in the District being 25 miles. Exclusive of these and of the roads within Howrah and Bally municipalities, the District contains 117 miles of road, of which 35 are metalled, and 411 miles of village tracks.

Before the opening of the Cuttack branch of the Bengal-Canals. Nāgpur Railway, the MIDNAPORE CANAL formed the main route between Calcutta and Midnapore. The first two reaches of this canal, running westwards from Ulubāria on the Hooghly to the Dāmodar and thence to the Rūpnārāyān, lie within the District. The two latter rivers are also connected by the GAJNATA BAKSHI Khāl, an improved natural waterway. Other navigable channels are the BALLY Khāl which runs from the Dānkuni marsh into the Hooghly at Pally and forms the main outfall of the Dānkuni drainage, and the Sankrail, Kālsāpa, Mithākunia and Pukuria Khāl. Inland navigation is carried on in small country boats, and daily steamer services connect Calcutta with Rājganj, Ulubāria, Ghātāl (*via* Ulubāria) and Kālna (*via* Bally and Uttarpara), all of which serve places within the District.

It has already been mentioned that when Howrah was made District, a separate magisterial charge, it continued for revenue purposes to form part of Hooghly. Land revenue and cesses are still paid there, but the Magistrate of Howrah has been appointed a Deputy Collector and declared independent of Hooghly with regard to excise, land acquisition, salt, income tax, treasury and stamps. He is assisted by a staff of one Joint Magistrate and

3 or 4 Deputy Magistrate-Collectors, while another Deputy Collector, assisted by a sub-deputy, is in charge of the Ulubārīa subdivision. Howrah is the head-quarters of an Assistant Inspector-General of Railway Police.

Civil and criminal justice. The administration of civil justice is controlled by the District Judge of Hooghly. The District shares with Hooghly a Small Cause Court Judge, assisted by a Registrar, for the disposal of petty money claims, and there are 5 Munsifs, of whom 3 are stationed in Howrah city and one each at Amtā and Ulubārīa. Sessions cases are tried by the Additional Judge of the 24-Parganas. Howrah, with its large labour force and fluctuating population, is a convenient centre for criminals; and it is largely frequented by professional criminals from up-country.

Revenue. The approximate rent paid by the actual cultivator to his immediate landlord is Rs. 18 per acre for paddy lands, Rs. 26 for sugarcane fields, Rs. 22 for jute lands and Rs. 16 for autumn rice lands. The land revenue and cess accounts are included in those of Hooghly, and it is only in recent years that those for revenue from other sources were made separate. The latter amounted to Rs. 4,06,000 in 1901-02 and to Rs. 4,62,000 in 1903-04.

Amts' income & tuy'e govern'ment. Outside the municipal towns of HOWRAH, BALIY, and ULUBARIA, local affairs are managed by a District board with subordinate local boards at Howrah and Ulubārīa. In 1903-04 the income of the District board was Rs. 1,18,000, of which Rs. 39,000 was derived from rates, and the expenditure was Rs 1,04,000, half of which was spent on civil works. The Howrah District board was the pioneer in introducing light railways in Bengal, and the railways from Howrah to Amtā and to Sheakhalā were constructed under a guarantee of 4 per cent. interest on the capital, the board receiving half of any profits earned in excess of this amount. The board has profited handsomely by the former railway.

Public works. The embankments along the Dāmodar and on the south bank of the Gaighāta Bakshi *Khäl* have a total length of 37 miles, and there are 6 miles of *takāri* embankment on the left bank of the Mādārīa *Khäl*. Large areas have been drained by the Rājāpur, Howrah and Barajalā drainage schemes, the works consisting of drainage channels with sluices leading into the Hooghly. These serve also as a protection against drought, as they afford a means of irrigation in years of deficient rainfall. The Hooghly is spanned by a pontoon bridge, which is described in the article on Calcutta, and the Dāmodar and Rūpnārāyan have been bridged near their mouths by the Bengal-Nāgpur Railway. At Sibpur are situated the Botanical Gardens, which are beautifully laid out along the Hooghly and are stocked with both ornamental and useful plants. They were founded in 1788 at the instance of Colonel Alexander Kyd for the collection of plants indigenous to

the country and for the introduction and acclimatisation of foreign species. This object has been fully realised, and the gardens are a centre of botanic science in Bengal. They cover 272 acres and contain a fine herbarium, botanical library and monuments to the first two Superintendents, Kyd and Roxburgh.

The District contains 18 police stations and 14 out-posts. The Police and police force subordinate to the District Superintendent in 1903 (including extra police) consisted of 5 inspectors, 25 sub-inspectors, 47 head-constables and 688 constables; there was also a rural police force of 132 *dafjudars* and 1,374 *chaukidars*. There was one policeman to every 0.8 square mile of area and to every 1,431 persons. Subsidiary jails at Howrah and Ulubâria have an aggregate accommodation for 61 prisoners.

In 1901 the proportion of literate persons was 11.5 per cent. Education. (21.2 males and 1.2 females), the proportion for males being exceeded in Bengal only in the case of Calcutta. The total number of pupils under instruction was 33,200 in 1892-93 and 33,464 in 1900-01, while 39,301 boys and 2,331 girls were at school in 1903-04, being respectively 59.6 and 3.7 per cent. of the children of school-going age. The number of educational institutions, public and private, in 1903 was 941, including 58 secondary schools, 829 primary schools and 53 special schools. The expenditure on education was 3.62 lakhs, of which 1.48 lakhs was contributed by Government, Rs. 24,000 by the District board and Rs. 6,000 by municipalities, while 1.58 lakhs was derived from fees. The principal educational institution is the Civil Engineering College at Sibpur.

In 1903, excluding the General Hospital in Howrah city, Medical. the District contained 5 dispensaries, of which 2 had accommodation for 9 in-door patients; the cases of 25,000 out-patients and 169 in-patients were treated, and 1,583 operations were performed. The expenditure was Rs. 9,000, of which Rs. 200 was met by Government contributions, Rs. 3,000 from local and Rs. 1,300 from municipal funds, and Rs. 4,000 from subscriptions.

Vaccination is compulsory only within the municipal areas. Elsewhere vaccination is backward, and the number of successful vaccinations in 1903-04 was only 21,500, or 32 per thousand of the population.

[Sir W. W. Hunter, *Statistical Account of Bengal*, vol. iii, 1876; and C. N. Banerjee, *Account of Howrah, Past and Present*, Calcutta, 1872.]

Howrah sub-division.—Head-quarters sub-division of Howrah District, Bengal, lying between 22° 30' and 22° 42' N., and 88° 2' and 88° 22' E., with an area of 173 square miles. The sub-division is a level plain, bounded on the east by the Hooghly, and containing numerous swampy depressions further inland. Its population was 481,257 in 1901, compared with 366,296 in 1891,

the density being 2,493 persons to the square mile. It contains 2 towns, HOWRAH, the head-quarters (population 157,594), and BALLY (18,662), and 365 villages.

Ulubāria Sub-division.—Southern sub-division of Howrah District, Bengal, lying between $22^{\circ} 13'$ and $22^{\circ} 47'$ N., and $87^{\circ} 51'$ and $88^{\circ} 12'$ E., with an area of 337 square miles. The sub-division is a low-lying alluvial tract watered by the Hooghly, Rūparāyan and Dāmodar. Its population was 419,257 in 1901, compared with 397,329 in 1891, the density being 1,244 persons to the square mile. It contains one town, ULUBĀRIA, the head-quarters (population 5,395), and 1,085 villages.

Amtā.—Village in the Ulubāria sub-division, Howrah District, Bengal, situated in $22^{\circ} 35'$ N. and $88^{\circ} 1'$ E. on the Dāmodar river. Population (1901) 210. Amtā is a considerable trade centre, and is connected with Howrah by a light railway, of which it is the terminus.

Bally (Bāli).—Town in the head-quarters sub-division of Howrah District, Bengal, situated in $22^{\circ} 39'$ N. and $88^{\circ} 21'$ E. on the right bank of the Hooghly. Its population increased from 13,715 in 1872 to 14,815 in 1881, to 16,700 in 1891 and to 18,662 in 1901. Bally is a flourishing town, containing paper and bone mills. It is a station on the East Indian Railway, 7 miles from Calcutta, and a place of call for a daily service of steamers between Calcutta and Kālna. The Bally Khāl, which forms the main drainage channel of the Dānkuni marshes, here debouches into the Hooghly, and along its right bank is a very large brick-making industry. Bally was constituted a municipality in 1883. The average income for the decade ending in 1901-02 was Rs. 20,000, and the expenditure Rs. 18,000. In 1903-40 the income was Rs. 32,000, half of which was derived from a tax on houses and land, and the expenditure was Rs. 29,000. The municipality maintains 15 miles of metalled and 13 miles of unmetalled roads.

Ghusuri.—Northern suburb of Howrah city in Howrah District, Bengal, containing jute and cotton mills, jute presses and rope works. The latter founded a century ago forms the oldest factory industry in the town. Ghusuri is a permanent market with a large trade in agricultural produce.

Howrah City.—Head-quarters of Howrah District, Bengal, situated in $22^{\circ} 35'$ N. and $88^{\circ} 21'$ E. on the right bank of the Hooghly. The city, which stretches for 7 miles along the banks of the river and includes the important suburbs of Sibpur, Ghusuri, Salkhia, and Ramkrishnapur, is now a great industrial suburb of Calcutta, but it is of comparatively modern growth. In the 16th century a market sprang up at Belor, near Sibpur, where the Portuguese used to tranship their goods from their sea-going vessels into the small river craft which ascended the Hooghly

to Sātgaon. Towards the end of the century Betor was deserted in favour of Sūtānuti, the site of the modern Calcutta. In 1785 Howrah was a small village held by one Mr. Lovett, who found it so unprofitable that he petitioned to be allowed to relinquish it. The Nawāb Nāzim's artillery park was at one time stationed here, and the artillery practising ground is shewn in old maps, north of the railway, where the most densely populated part of the town now is. The Government salt *golás* were located within the limits of the town, and it gradually grew in importance until in 1843 it became the seat of a separate Magistracy. In 1853 a further impetus was given to its development by the establishment here of the head-quarters of the East Indian Railway, the first section of which was opened to traffic in 1854. In 1874 the pontoon bridge was opened, and the improved communication with Calcutta thus afforded enabled many of the people employed in the metropolis to reside on the right bank of the Hooghly. Industries. Meantime, there had been a continuous development of various large industries conducted according to European methods, of which the rope works at Ghusurī and Shalimār, founded a century ago, are probably the oldest. Then followed iron foundries and engineering works, and subsequently the rise of the jute and cotton spinning industries, until at the present time there are no less than 40 registered factories working within the municipal limits.

Excluding 13,815 persons in Bally, which then belonged to Howrah but has since been made a separate municipality, the population in 1872 was 84,069. In 1881 it had grown to 90,813, and in 1891 to 116,606, while at the census of 1901 it was 157,594 or 35 per cent. more than in 1891 and nearly 87 per cent. more than in 1872. This rapid expansion is due almost entirely to the great industrial development that has taken place. The growing demand for labour has been met by the immigration of labourers from other parts, and about two-thirds of the inhabitants are immigrants, chiefly from up-country. More than 33,000 come from the United Provinces, and about 25,000 from Bihār. Among these foreigners there is an enormous excess of males, who outnumber the females in the ratio of 2 to 1. They are for the most part operatives in the mills, who return home as soon as they can afford to do so. In the meantime, they live huddled together in crowded lodging-houses, as close as possible to the mills and factories where they work. This over-crowding is not a necessary condition in Howrah, as there is ample room for building at no great distance from the centres of industry. It proceeds partly from the desire of the operatives to live as near as possible to their work, partly from their poverty which leaves them little to spare for rent, and partly from the pressure of municipal taxation which falls heaviest on huts and discourages the construction of new ones,

unless there is a certainty of their being kept full of lodgers. With the exception of Calcutta, Howrah is now the most populous city in Bengal. Of the total population 73·6 per cent. are Hindus and 24·9 per cent. Muhammadans, while there are 2,282 Christians and 71 followers of other religions.

Muni-
cipality.

Howrah was constituted a municipality in 1862. The average income for the 10 years ending in 1901-02 was 5·86 lakhs and the expenditure 5·40 lakhs. The rapid growth of the population has led to a great increase in the value of house property and land, and the income has more than doubled during the decade, amounting in 1903-04 to 9·71 lakhs, of which 1·83 lakhs was derived from a tax on houses and property, 1·49 lakhs from a conservancy rate, 1·38 lakhs from a water rate, Rs. 55,000 from a lighting rate, Rs. 12,000 from a tax on vehicles and Rs. 52,000 as rent from lands and other municipal property. The incidence of taxation was Rs. 3·6·6 per head of the population. In the same year the expenditure was 6·10 lakhs, including Rs. 60,000 spent on lighting, Rs. 97,000 on water-supply, Rs. 18,000 on drainage, Rs. 1,79,000 on conservancy, Rs. 55,000 on roads, Rs. 17,000 on medical relief and Rs. 5,000 on education. Portions of the city have been lit with gas for more than 25 years, and the system is being extended, but the greatest recent improvement was the introduction in 1896 of a filtered water-supply from water-works, filters and pumping stations constructed at Serampore. The city had previously suffered very severely from water famines and cholera, but since the opening of the water-works the former have ceased, and the latter has not appeared in epidemic form. On the other hand the general death-rate has risen. The city is low, and the amount of stagnant water has greatly increased since the water-works were opened. It is in urgent need of an efficient system of drainage, but efforts are being made to improve the present system. The municipality maintains 50 miles of metalled and 4 miles of unmetalled roads.

Public
works.

Howrah is the terminus of the East Indian and the Bengal-Nagpur Railways, which bring down the coal and other products of the western Districts and connect Calcutta with the general railway system of Upper India and the Peninsula. It is also the terminus of the Howrah-Amta and Howrah-Shenkhala Light Railways. It is connected with Calcutta by a floating pontoon bridge (see CALCUTTA). The chief public buildings are the Magistrate's office, the civil courts, the District board and municipal offices, the Howrah General Hospital, the Sibpur college, the Howrah District school, and the jail. The jail has accommodation for 18 convicts and 31 undertrial prisoners.

Police.

For police purposes the town is divided into 3 thanas, Howrah, Golabari and Sibpur, and the force in 1904 consisted of 3 inspectors, 5 sub-inspectors, 18 head-constables and 345 constables.

The principal educational institution is the Civil Engineering Education College at Sibpur, which occupies the buildings and premises of the old Bishop's college, since transferred to Calcutta. The college contains 4 departments. In the Engineer department, the course extends over 4 years, after which the pupils have to undergo a further period of one year's practical training under the Public Works department to obtain the final college certificate; a certain number of the successful graduates receive appointments in the Public Works department. The course in the Apprentice department lasts for 5 years, but those leaving after 3½ years are entitled to third grade overseer's certificates. The Artisan class is chiefly for the benefit of sons of *mistris* (carpenters), and a stipend of from Rs. 1 to Rs. 3 a month is given to those who turn out satisfactory work. The Agricultural class is to be transferred to the Imperial Institute at Pusa. The total number of pupils under instruction in 1903-04 was 386, and the expenditure amounted to Rs. 1,50,000, of which Rs. 1,28,000 was met from Provincial funds and the balance from fees.

The Howrah General Hospital has 112 beds, and in 1903 Hospital, 1,848 in-door and 13,000 out-door patients were treated, and 1,521 operations were performed. The expenditure amounted to Rs. 34,000, of which Rs. 6,000 was contributed by Government, Rs. 10,000 from local funds, Rs. 5,000 from municipal funds and Rs. 9,000 from subscriptions.

Salkhia—Northern suburb of HOWRAH City, Bengal, containing docks, Government salt godowns, salt crushing mills, jute presses and engineering and iron works.

Sankrail.—Village in Howrah District, Bengal, situated in 22° 34' N. and 88° 14' E. on the right bank of the Hooghly. The village contains jute mills and cement works, and pottery of some local repute is also manufactured. The Sankrail *Khal*, which here enters the Hooghly river, forms a means of communication with the interior of the Hooghly District.

Sibpur.—Southern suburb of HOWRAH City, Bengal, opposite Fort William. During the last century the place has grown from a small village into a flourishing town possessing jute mills, flour mills, and engineering and rope works. On the river side, to the south, are the Royal Botanical Gardens, among the finest of their kind in the world. A fort was erected here in the 16th century to defend the shipping from the piratical incursions of the Maghs or Arakanese. A little above the gardens stands the Sibpur Engineering College (see HOWRAH City).

Ulubaria Town.—Headquarters town of the sub-division of the same name, Howrah District, Bengal, situated in 22° 28' N. and 88° 7' E. on the right bank of the Hooghly, 15 miles south of Howrah. Population (1901) 5,395. Ulubaria is the starting place of the MIDNAPORE CANAL and is a station on the Bengal-Nagpur

Railway, 20 miles from Howrah. The road to Midnapore and Orissa crosses the Hooghly at this point by a ferry. Daily services of steamers run from Calcutta to Ulubâria, and also *via* Ulubâria to Ghatal. A large weekly cattle market is held here. Ulubâria was constituted a municipality in 1903. In 1903-04 the income was Rs. 3,000, of which Rs. 2,000 was derived from a tax on persons (or property tax), and the expenditure was Rs. 2,600. The town contains the usual public offices; the sub-jail has accommodation for 10 prisoners. In 1687 Job Charnock c/ settled at Ulubâria for a short time before laying the foundation of Calcutta.

Cross-references (for Imperial Gazetteer only).

Bâli.—Town in Howrah District, Bengal. *See BALLY.*

Bancoora.—District, sub-division and town in Bengal. *See BANKURA.*

Bardwân.—Division, District, sub-division, town and estate in Bengal. *See BURDWAN.*

Beerbhoom.—District in Bengal. *See BIRBHUM.*

Bishenpur.—Sub-division and town in Bânkura District, Bengal. *See BISHUNPUR.*

Cowcally.—Village in Midnapore District, Bengal. *See GEONKHALLI.*

Culna.—Sub-division and town in Burdwân District, Bengal. *See KALNA.*

Cutwa.—Sub-division and town in Burdwân District, Bengal. *See KATWA.*

Gholghât.—Ruined fort in Hooghly District, Bengal. *See HOOGHLY TOWN.*

Ghossery.—Suburb of Howrah City in Howrah District, Bengal. *See GHUSURI.*

Hûgli.—River, District, sub-division and town in Bengal. *See HOOGHLY.*

Kânthi.—Sub-division and village in Midnapore District, Bengal. *See CONTAL.*

Kanu.—Village in Burdwân District, Bengal. *See KHANA.*

Khejri.—Village in Midnapore District, Bengal. *See KEDGEEF.*

Mâheeshrekha.—Sub-division of Howrah District, Bengal. *See ULUBARIA.*

Medinipur.—District, sub-division, town and canal in Bengal. *See MIDNAPORE.*

Nagar.—Ancient capital of Birbhûm District, Bengal. *See RAJNAGAR.*

Saptagram.—Ruined town in Hooghly District, Bengal. *See SATGAON.*

Sirampur.—Sub-division and town in Hooghly District, Bengal. *See SERAMPORE.*

Sooree.—Sub-division and town in Birbhûm District, Bengal. *See SUAT.*

Srirampur.—Sub-division and town in Hooghly District, Bengal. *See SERAMPORE.*

Sulkea.—Suburb of Howrah city in Howrah District, Bengal. *See SALKHIA.*

Tarkassur.—Village in Hooghly District, Bengal. *See TARAKESWAR.*

Utarpara.—Town in the Hooghly District, Bengal. *See UTTARPARA.*

Vishnupur.—Sub-division and town in Bânkurâ District, Bengal. *See BISHNUPUR.*